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By-Biasini, Americole; Pogonowski, Lee

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Objectives of this program were (1) to develop aural sensitivity, (2) to discover basic concepts of musical elements and structure, (3) to acquire simple musical skills, and (4) to develop positive attitudes toward music and self. Participants were 689 students from all socioeconomic levels, ranging from 2 to 13 years in age. Following a workshop and planning conference, the Central Atlantic Regional Educational Laboratory (CAREL) staff, classroom teachers, and music specialists instigated The Developmental Phases of Musical Exploration. The six phases were free exploration, guided exploration, free improvisation, planned improvisation, reinforcement, and evaluation. The program, using a team teaching approach, utilized a music laboratory, audio equipment, and electronic music. Teachers were evaluated through questionnaires, classroom visits, individual teacher consultations, and experience reports. Students were evaluated by a pre- and posttest, classroom observations, and tapes of musical experiences. Results indicated high teacher and student involvement and students' development of musical creativity and positive attitudes toward music. Aural tests require further analysis. Refinement of the program into a pilot process-model curriculum and incorporation of music into a multi-arts core curriculum were recommended. (DR)

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Development of a Music Curriculum for Young Children

by
Americole Biasini
and
Lee Pogonowski

CAREL Arts and Humanities Program

PS002204

Central Atlantic Regional Educational Laboratory
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

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FOREWORD

This is one of a series of six volumes which report on Phase One of the CAREL Arts and Humanities Curriculum Development Program for Young Children. Volumes two through six -- respectively for visual arts, dance, literature, music, and theatre -- document Phase One details of the rationale and approach, teacher preparation program, curriculum development and contents, evaluation findings, and recommendations for the future. The first volume is an overview of the entire program and outlines recommendations for Phase Two.

The U.S. Office of Education funded CAREL to complete Phase One which lasted two years, ending on May 31, 1969. For each component, this included exploratory studies; the preliminary development of curricula materials, objectives, and strategies; preparation programs for classroom teachers; classroom tryouts and evaluation of the preliminary curricula; and preparation for controlled pilot testing in the schools. For these purposes, CAREL prepared 48 classroom teachers to teach one art component each, and explored each of the arts singly, with 2,809 pupils in 27 CAREL field schools for approximately a year.

These programs in the arts and humanities were truly innovative in both content and scope. Two of the five components -- dance and theatre -- did not even exist in most American schools. The other three existed, but in generally limited programs which did not nearly meet the expressed needs of pupils.

Each component discovered that most students were constrained, restricted, and lacked interest in their usual school roles as recipient learners and repositories of information. The CAREL program developed new roles for students. They could become explorers of the full range of each art form, creative and expressive artists, poets, writers, composers, and performers; they were respected as audiences, critics, and evaluators with valid feelings, imaginations, and ideas. They were trusted and encouraged to play orchestral and exotic instruments, to use recording equipment and cameras, to work with professional quality art materials, and to express their own poetry and stories in their own language. Teachers became guides with available knowledge, skills, and resources to help students solve their own problems with their own creativity.

The results were almost instantaneous in terms of student excitement and eager involvement. They could be "turned on" within minutes by personal interest and pride in their new roles. And as exploring, creative, and expressive self-educators, they also learned more of the classical information and skills than they ever did in their former roles as recipients and repositories. Now, for example, a pupil asked his music teacher how great composers had solved certain problems in beginning a composition. The pupil then listened to classical recordings for the answers and considered them for his own composition. This was very much different from listening to the beginning of classical recordings to memorize answers for a test.

Much remains to be done to develop and refine the CAREL curricula and especially the preparation programs for classroom teachers. But the CAREL "way of learning" can provide the essential pupil energy needed for further curriculum development, energy in the kind of pupil interest and excitement that accompany his musical composition, his work of art, his poem or story or improvised dramatic role.

Due to the lack of funds, CAREL can not continue into Phase Two. However, it is hoped that the information and findings of these CAREL studies will enable and enhance the continuation by others into the next phase of an arts and humanities curriculum development program for young children.

Martin Dishart, Ph.D.
Program Director

RATIONALE OF THE APPROACH

The Characteristics of Music

The term "music education" is equivocal. While it has one meaning for the musician-educator, the term has a completely different connotation to the student. For the educator music education can be defined most simply. It is a series of exercises and experiences devised to assist the student to gain skills and knowledge and become involved in the art of music. To the student, however, music education is the art. His perspective of music as an art form is derived from his participation in the educational strategies of the classroom. His opinions, prejudices, needs and interests are largely shaped by the school experiences. The frame of reference with which he will judge the worth and quality of music is formed by his educational program.

Antecedent to all other curricular concerns, therefore, is a clearly defined position on the nature of music. Since the students' terms of understanding are the fundamental concern, all educational substance and the structure of the study must be planned to honestly represent the nature and character of music. The study must clearly reflect those basic qualities which give meaning, endurance, and importance to the art.

Throughout the long history of music there have always been present three dominant characteristics. First, music is an expressive medium. Through a distinctly unique and forceful language of sound, it conveys ideas and feeling. It is a way of knowing and experiencing, but it is also a method of communicating, of addressing the spirit of man. Because music has the power to affect man's mind and emotions with a unique intensity and breadth, the expressive content of music can not be translated into verbal terms. As Mendelssohn has said, "the thoughts which are expressed to me by music . . . are not too indefinite to put into words, but on the contrary, too definite."

The second characteristic of music is found in its continuing nature. It has existed as a reflection of man's experience and expressive desires for as long as our history records. It exists today, not only as a curatorial exhibition of historical times and other societies, but as a contemporary, living, and vital expressive medium. Most important is the fact that music has always been sensitive to those contemporary conditions and social structures of the time of its creation. As society changed so has the means, but not the intrinsic nature, of the art. It has evolved new patterns, new modes, and new techniques of organization in order to meet the new tempi, structures, and pressures of life and society. Music is a continuing art, always sensitive to and interpreting the present. It is neither a static medium nor a completed moment of the past. Aaron Copeland describes it as, " . . . in a continual state of becoming."

The third characteristic of music, perhaps the most important in curricular formation, is suggested by the first two. Music is a constant search for creative expression. Every significant musician through history has sought to extend the means of the art. He has not been content to merely duplicate the systems and idiomatic practices of his predecessors, but has found new means to meet the expressive demands he felt. Often this search has produced radical changes in music. Ideas of dissonance and consonance have been contradicted, and structural practices have been discarded as new expressive forms have arisen. Sound sources, rhythmical formations, harmonic textures, and even the relationships of the basic elements have undergone many revolutions. The pace of this search for new means within the art has been commensurate with the pace of man's total creative evolution. Today this search is undoubtedly the primary concern of the art.

These three fundamental qualities, the expressiveness, the continuing and current nature, and the vitality of the creative search, are the most inherent characteristics of music. They must, therefore, be the most immediate responsibilities of the study, underlying every classroom experience and evident through every educational strategy.

The Nature of the Learning Program

With the vital musical requisites for the study clearly defined in the foregoing, several factors concerning the nature of the learning program become evident. Immediately obvious is the requirement of breadth. Most urgently, the study must enable the student to "think" in the medium of music; he must have a conceptual grasp of the nature of the medium and understand the language of musical sounds. Simultaneously, the study must provide for growth of the power of activity within the means of the art. The power to act, to operate as a musician, is essential not only for its own value in allowing personal participation, but as a process for the development of understanding. The student must develop his capabilities to create, perform, conduct and be otherwise actively involved in the various musical processes if he is to fully grasp the medium. Without this personal active involvement the student becomes merely a musical spectator. While spectatorship may occasionally arouse interest, it is a most unreliable method of initiating and maintaining intrinsic concern.

In addition to the demand for breadth in variety of experience, the continuing nature of music demands a broad use of musical materials. Both the rich heritage and the contemporary vitality must be fused in the study in such a way that the student develops a clear and unrestricted view of the timelessness of the art. This quality of the art, however, is not contingent on the timelessness of any one musical work. Any composition, or many compositions, are not the art, they are but moments in its history. Whether a piece is forgotten in time or continues in the repertoire, the art remains and continues to evolve. This perspective is best demonstrated in the field of literature where the works of Chaucer, Shakespeare, and Milton are not pretentiously positioned to the exclusion of contemporary verbal and artistic achievements. They are known as significant moments in the lineage of literary achievement. Their values are recognized but their form and language are not imposed on the student of today.

This necessity for breadth continues into the area of structural and manipulative techniques. To base the study, expecially the earliest stages, predominantly on rules of melodic, harmonic, and rhythmic procedure which have not been used seriously by composers for at least six decades is to falsely represent the art. This forces the child to establish prejudicial judgments of right or wrong in music based solely on idiomatic practices. It is far more consistent with the art that the student's judgments be formed on the broadest principles of expressiveness, form, balance, and tension for which any idiomatic practice is but one composer's solution.

This requisite of breadth is stressed because two great dangers exist in the development of an effective learning program. The first is intellectual closure which occurs when the child's perspective is narrowed by restricted experience or an overemphasis on systematic procedures. Closure develops when the student's education narrows rather than broadens his intellectual curiousity - when his insights are so confined he is unwilling or unable to make judgments of new experiences.

The second danger is that the means of learning may become the end. This is of particular concern in the area of performance. Because of the physical demands and pressures of time required to develop instrumental or vocal technique, dexterous accomplishments are often substituted for musical insight. This situation may exist not only in the second grade where mastery of isolated musical skills, such as pitch production, becomes the student's goal, but at all levels.

Similarly, mastery of notation, a complex system of symbolism for the transcription and recall of notes, can so dominate the study that the reason for the symbolism becomes obscured. Note reading is substituted for conceptual understanding, and rhythmic computation, often divorced from a musical context, becomes a major activity.

The third characteristic of music, the consistent search to extend and expand the means of the art, clarified the atmosphere of learning which must dominate the study. The student must not be trapped by static methodologies which largely demand rote responses or recognition of commonplace factors. The study must be filled with the action of discovery. It is far more important in the classroom that the student regard himself as a creative musician, experimenting, interpreting, and discovering for himself the concepts and potentials of the art, than that he follow any prescribed pattern of teacher-dominated instruction. The essence of the art of music becomes most clear when the student explores for himself the nature of the interaction of the elements of music and becomes involved as a creative musician in a personal search for musical meaning. Studies devoted to an analysis of the experience of others or confined to performance of music are simply inadequate to convey the intrinsic and viable nature of the art. The atmosphere of learning must be one in which active exploration and personal discovery are the fundamental processes for learning. As Kline has said, "The logic of discovery is far more exciting than the logic of the discovered." [1]

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[1] Morris Kline, Mathematics, A Cultural Approach. (Reading, Mass.: Addison Wesley Publishing Company, Inc., 1962.)

In summary, the study must provide the student with the fullest experiences in music as dictated by the nature of the art. He must become involved in the total process, composing, performing, conducting, listening with critical awareness, and evaluating. His participation in these activities must always be in the spirit of a musician, not an imitator. The study must deal with the inherent concepts of the art and be so formulated that the student discovers for himself the nature of interaction and relationship of the elements that bring meaning to music. Finally, the materials of instruction must be drawn from the total spectrum of the art with primary emphasis on the materials of today's music. For the strongest bond between the musical art and the student is a sensitivity to contemporary life.

Objectives

Within this rationale of music and educational responsibility, it becomes obvious that the primary curriculum must deal fundamentally with four areas: 1) the development of sensitivity to sounds, their interaction and musical nature; 2) an understanding of basic concepts of musical elements and their combination and manipulation; 3) the acquisition of the simple skills which allow the student to operate as a creative musician; 4) the development of positive attitudes toward music and self. These, therefore, become basic cognitive, skill, and attitudinal objectives of the primary music program.

1. Aural sensitivity.

   Since sound is the language of music it is imperative that the educational program deal heavily with an exploration of sounds in a musical framework. It is essential that the child learns through experience not only to discriminate but to make analytical musical judgments about sounds and becomes involved in judicial and creative judgment regarding their interaction and expressive manipulation. Expected outcomes must always reflect breadth of experience rather than a sequence of structure. The emphasis is on an exploratory learning program, conceived of and designed in terms of process.

2. Musical concepts.

   Through a sensitivity to sounds, it is possible for the student to participate in the discovery of basic concepts of musical elements and structure. These concepts must be discovered in a total musical setting which is immediately related to the child's own creative efforts.

3. Skill development.

   Since music exists only in an aural form, each child must gain the simple skills which allow for a musical realization of his musical ideas. This includes basic performance skill, conducting skills, skills of aural discrimination and, to the limited degree demanded by his own developing insights, translative (notational) skills.

4. Attitudes.

   In addition to the skill and cognitive objectives described above, it is urgent that the student develop within himself those attitudes toward music which assure that the educational experiences have intrinsic meaning and are personally rewarding. These attitudes are not only about music but about himself as a creative, responsive, and respected individual who has the power to control and express his thoughts and to use music as a medium for personal fulfillment.

Many of these objectives can be gained through the inductive and exploratory processes employed in the curriculum. From the outset the child is involved as a musician, free to intuitively explore, to make judgments and to use his own logic.

Procedures

After considerable investigation which included a summer workshop and planning conference, CAREL joined with the Manhattanville Music Curriculum Project (MMCP), a project of national scope funded by the U.S. Office of Education, which was carrying on extensive curriculum investigation. This cooperation was most desirable since, while they were dealing primarily with different age levels (MMCP was concentrating mainly on the upper elementary and secondary levels), both CAREL and MMCP could profitably interchange ideas and intellectual and musical resources. Since basic goals and philosophy also were closely aligned, it was unnecessary for CAREL to duplicate much of the investigation, materials preparation, and other initial steps which had already been accomplished by MMCP. It was possible, therefore, to begin on an operational level with a considerable backlog of experience and information.

An intensive study was conducted by CAREL using the MMCP consultants and materials to: (1) test the effectiveness of the MMCP curriculum materials in grades kindergarten through three; (2) test the feasibility of preparing classroom teachers to teach the new curriculum; (3) develop and field test a teacher training program for musically untrained teachers. The results of the study clearly indicated that the MMCP spiral curriculum and sequence of logic was inappropriate for children at the primary levels. A special pre-cycle-curriculum consistent with the MMCP philosophy, but more attuned to the young child's perspective, learning characteristics, and physical development, needed to be prepared at this time.

Because of the extensive musical demands on the teacher in the MMCP cycle curriculum, it was presumed that only especially trained music specialists could function effectively in the classroom with this educational process. However, the results of the study indicated that the classroom teachers did operate successfully with the music program at the primary levels of instruction. They were able to grasp the essence of the educational process central to this program; they demonstrated confidence and competence in dealing with basic music problems that arose from the students' inquiry as well as their own creative enterprise; and they exhibited a perspective of music and musical concepts which allowed for exploration, personal judgment, and genuine questioning. This is especially meaningful since in the vast

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majority of classrooms, music at early levels is the responsibility of the classroom teacher. According to a survey made by the National Education Association, "In three-fourths of the schools surveyed, the classroom teacher is solely responsible for some or all of the actual (music) instruction".[2]

It is thus believed that music should be an integral part of classroom learning. It should not be a once-a-week special program divorced from the evolution of daily classroom dynamics. The position of the classroom teacher is unique. Aware of the potentials and limitations of her students, she can provide a wide range of open-ended learning experiences in all areas - including music - tailored to the needs and interests of her students.

The music specialist in this setting serves primarily as a resource person. She is available to assist the primary classroom teacher in the specifics of music learning. She can help develop strategies, select related listening materials, and provide necessary instruments and equipment. She is also available to teach demonstration lessons in the classroom and to hold in-service workshops for teachers. In short, the music specialist is the classroom teacher's principal source of information, support and guidance.

Following the feasibility study, nursery teachers, primary classroom teachers and music specialists were enlisted to assist the CAREL Music Staff in the development of a meaningful music curriculum for young children. The cooperation of all these teachers was an important aspect of the developmental phase. It allowed for immediate testing of ideas in a number of diversified situations under a variety of teaching styles. Concurrently all teachers were encouraged to develop their own ideas and procedures within a broad framework of educational process. Their discoveries, productivity, and accomplishments added considerable data to the developmental phase and resulted in dramatic changes in their teaching styles. A valuable and enduring part of curriculum development and reform, then, is the process of creation and thought and unless teachers are involved in both, chances for effecting change will be slight.

Process

The curriculum being developed is a process for musical involvement compatible with the nature of learning styles in early childhood. Every child, to a greater or lesser degree, is capable of creative activity. The creative impulse reveals itself most freely in a non-judgmental atmosphere, i.e., one in which the learner is free to explore all the possibilities of a given situation. The process of invention - discovering or making something hitherto unknown to mankind - and of reinvention - discovering or making something hitherto unknown to the individual - are similar processes. The learning experience, as a result of the process, has special significance for the child as a person - the learning which takes place will involve the assimilation of something new into himself. It will involve a reorganization of what was there before. What has been learned may have given the learner an enlarged perspective of himself, of his powers and potentialities to operate as a creative musician. The learning may have had many other ramifications, but whether they are large or small the self-picture has been changed.

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[2] NEA Research Bulletin, Vol. 41, No. 2 (May 1963), pp. 56-59.

In order to become intrinsically involved in music the child must be allowed to reinvent it through the processes of creating, performing, listening and judging. The learner must be free to experiment, improvise with musical ideas, to pursue unproductive avenues of exploration and to discover for himself that those avenues are unproductive. Exploration and experimentation lead to self-identification - an awareness of individual limitations and strengths. As the learner becomes aware that he has succeeded, in part, in expressing what he has to express, he may gain in confidence and come to an awareness of his broadening personality by virtue of the recognition of even partial success.

Knowledge arises and becomes organized as the child interacts with his environment. Piaget maintains that the central idea in the structure of knowledge is the operation. He explains: "Knowledge is not a copy of reality. To know an object, to know an event, is not simply to look at it and make a mental copy, or image, of it. To know an object is to act on it. To know is to modify, to transform the object, and to understand the process of this transformation, and as a consequence to understand the way the object is constructed. An operation is thus the essence of knowledge; it is an interiorised action which modifies the object of knowledge."[3]

Piaget's theory leaves little question as to the importance of learning through activity. The child comes to an understanding of music through his own efforts, i.e., the manipulation of sound-producing materials and experimentation of musical ideas or notions.

This process of involvement provides for the exercise of intuitive, inductive and deductive thinking. It also allows for personal exploration and discovery as a way of knowing. The student's judgments, efforts, and accomplishments are measured against his own developing insights rather than against static and imposed views.

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[3] Piaget, J. "Cognitive Development in Children: the Piaget Papers." In R. E. Ripple and U.N. Rockcastle (Eds.), Piaget Rediscovered: a report of the conference on cognitive studies and curriculum development. Ithaca, New York: School of Education, Cornell University, March 1964.

TEACHER PREPARATION

Selection of Teachers

It was our considered opinion that participating teachers should reflect a cross section of those general characteristics found in most primary teachers generically. We were more interested in participating teachers as a group possessing all the desirable characteristics deemed necessary for success than we were with each individual teacher possessing all these characteristics.[1] Therefore, we selected our teachers at varying points along the continua which identify specific criteria as follows:

1. Interest in teaching music
   (little or no interest ____ a great degree of interest)
2. Teaching experience
   (no experience ____ many years of experience)
3. Teaching style
   (highly inflexible ____ highly flexible)
4. Classroom environment
   (teacher-directed ____ pupil-directed)
5. Willingness to comply with requests for written data. (It is recommended that there be no continuum for this item for it is essential that all teachers comply with this request if the curriculum is to be germane and emergent.)

The number of participating teachers and the distribution of composite characteristics along the continuum vary proportionately with the nature of the task. Our experience has demonstrated that twelve to fifteen teachers constitute an ideal group size for the developmental phase. As participating teachers decrease in number it is recommended that the composite characteristics be skewed to the right of the continuum.

The application of our criteria for the selection of teachers resulted in three music specialists and two classroom teachers from the city of Baltimore; two music specialists and five classroom teachers from the city of Washington, D. C.; and one classroom teacher from Montgomery County, Maryland. A more detailed, statistical analysis of these teachers, grade distribution, and number of pupils appears in the appendix.[2]

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[1] Appendix - Vol. I, A 1

[2] Appendix - Vol. I, A 2

The Workshop Concept

Good morning, Donna ...... Good morning, Lee .... Good mooorrrrrrnnnnnnnning, Rosemary, ... Good morning ,,,,,,,,,, Allie Goood morning, Cole .... individuals begin gravitating to various instruments located throughout the room .... Good .... morning, Dolores .... enter timpani, ... Good morning, Sarah ....

...... enter xylophone, slide whistle .... the vocal line continues as everyone extends a joyous greeting to each other ....

ood morning
Gooo g oolie ggg
g, Tooo Goodddd morrningrning
Flora aathy
Good, morning, Good, good mo Kaaaaa Good mooorrrnnning
Good mooorrrrin
g, Gay, Gay, Gay, Gaaaaaaaaaaa
aa
a
ay

further impetus is given the viable extemporization as additional instruments make their entrances ....

Good morning, Dolores inner tube cymbals
African drums Good morning, Pat garden hose
Good morning, Gay clarinet Good morning, Donna hand drums
siren good morning, Kathy good morning good morning

someone jumps on a chair and begins to conduct ...... the improvisation continues to develop and to take shape ....everyone is singing ...... sound on sound ...... everyone is playing, ... sound on sound on sound ...... everyone is singing and playing ....

density stress silence melody
sound accents polyrhythms release tension
dissonance tension noise polyphony

another conductor comes to the fore and with a commanding homophonic setting of Good morning - - the "Good Morning Cantata" is brought to a resounding close.

The foregoing is an attempt to recapture the spirit of a sonic phenomenon called free improvisation.[3] The developmental phase of the CAREL Music Curriculum got under way with a workshop for participant teachers on August 12, 1968. A number of free improvisations were scheduled - and some simply occurred spontaneously. How was it possible to get so many classroom teachers with a modicum of technique, to perceive musical "data" clearly enough to affect assimilation and aesthetic structuring of the data so freely?

All musical experiences were organized around the workshop concept. One of the principal elements in a productive workshop setting is the psychological climate. It must be non-judgmental, i.e., an atmosphere free of imposed values and goals, an atmosphere in which the learner is free to explore all the possibilities of a given sound source or situation. The creative impulse reveals itself most freely in this climate. The cardinal rule is that it is impossible to be wrong. The learner must be free to discover and structure musical ideas and conceptual relationships through his own exploration. It must be understood that noise (creative fallout) is essential to and part of the creative process. It is part of a means of assimilating and arranging information which leads, ultimately, to the symbolic codification of artistic expression.

Exploration and experimentation lead to self-identification - an awareness of individual limitations and strengths. Once the learners have an opportunity to discover "themselves" in these terms, the teacher is in a position to assist them further in the creative process. To facilitate this process we administered the Attitudinal Assessment Instrument.[4] This device assisted us in identifying our teachers' attitudes about their interest in music, composing music of their own, what constitutes a music curriculum, and their reactions to recorded samples of old and new music unfamiliar to them. In most cases, teachers were not operational as composers, performers and perceptive listeners; their interests in music were limited; and their concepts of a music curriculum were confined to the traditional concepts of singing, dancing, listening and note reading.

With this information we provided opportunities for teachers to exercise whatever musical knowledge they possessed in a variety of ways so that they might begin to sense their own personal power as imaginative and creative people. Through manipulation of the learning environment and relevant strategies, we introduced our teachers to the processes of music, viz., composing, performing, conducting and critical listening.[5] The non-judgmental atmosphere of the workshop suggested at the outset that anything was possible. The learner was free to experiment, to become sensitive to the materials of music, and to extend his capacity for self-expression. The workshop was thereafter characterized by spontaneous and total involvement.

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[3] Appendix - Vol. II, A 3

[4] Appendix - Vol. I, A 3

[5] Appendix - Vol. I, A 4

At this point it must be understood that free improvisation is not totally, or in greater part, a random experience or happening. The improvisation is shaped and formed by the total musical experience - the initial impetus which precipitated the improvisation, the nature of the instruments used, the number of participants, and the heightened sensitivity of the participants to themselves, to each other, and to sound.

It is recommended, therefore, that free improvisation be considered an integral part of the first steps in introducing classroom teachers to the creative process. It unleashes the creative impulse, results in heightened receptivity, allows for breadth of exploration, is immediately expressive, and provides for a synthesis and refinement of musical data. In short, the process of free improvisation leads to self-identification - the first step toward self-realization.

In addition to free improvisation, other means were necessary to guide teachers to the discovery of new instruments and procedures for organizing sound so that early patterns of musical thought and practice were not allowed to become habitual. The development of more sophisticated levels of dexterous skills and skills of aural discrimination were other factors which needed attention. These needs were met by the formulation of a developmental schema which we refer to as The Developmental Phases of Musical Exploration.[6] This frame of reference serves as a basis for operationalizing the creative process, for developing strategies and learning activities for children, and, as a diagnostic tool, for determining levels of development and understanding in children. A more complete description of the DPME appears in section C of this progress report.

Another discrete feature of the CAREL Music Workshop was the exploration of electronic music techniques. Tape recorders served as the principal means for gathering electronic sounds and for altering vocal, instrumental and object sounds. Teachers quickly discovered how to splice tape and to make their own tape loops, the use of reverberation and echo, alteration of speed to affect octave displacement, and other tape alteration techniques. The use of electronic music, heretofore unused by most of the participant teachers, became common practice by the second day of the workshop.

Finally, the Listening Guide[7] proved to be an invaluable instrument for directing attention to musical detail and process. Reactions to planned performances focused on the "problem." In free improvisations, discussion focused on inherent characteristics. In all cases attention was given to analytical, judicial, and creative considerations. The result was a marked improvement in aural perception and judgment.

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[6] Appendix - Vol. II, A 3

[7] Appendix - Vol. I, A 10

The Music Laboratory

To assist the classroom teacher in providing a stimulating learning environment for her children it became apparent that major changes in the traditional classroom arrangement, both psychologically and physically, had to be considered. Our solution to this problem is the Music Laboratory. The Music Lab is an educational environment created to allow and motivate intrinsic involvement, personal growth, and musical insight. It is a learning atmosphere where creativity is honored, judgment-making is practiced, personal viewpoints are considered; where music and sincerity are respected, and where the logic of discovery is considered far more important than the logic of the discovered. Here the musician's roles are played. Every student becomes involved in the total process of music: composing, performing, conducting, listening, enjoying, sharing, and reacting as musicians always have. It is an experience in the real thing on the level of the student's own capabilities.

The principles of the Music Lab are as follows:

1. Discovery is the most productive and exciting means for learning.
2. Conceptual understanding is the main goal of the music curriculum for all children. It is imperative for intrinsic involvement.
3. The music of our time is the most logical place to begin music study. It is relevant and pertinent.
4. Totality of experience in the musical process is essential to the development of musicality.

In the Music Lab there are several unique features:

1. There are several types of related activities which are available to the student and within certain boundaries he may choose those things that excite his curiosity and imagination.
2. Much of the student's Lab time is not scheduled by the teacher. This allows the student to exercise his own sense of personal responsibility in planning his time to meet his own needs.
3. The majority of Lab time is devoted to individual and small group learning experience, thus freeing the student from the bounds of the median level of large group instruction.
4. The teacher is not constantly the point of focus of the entire class. This permits individual perspectives, personal discoveries, and a wide range of judgment-making by the students.
5. More than half of the teacher's time is available for individual contacts to meet individual needs.
6. Musical concern in the Lab is not divorced from music in the real world. The Lab encourages and uses a broad spectrum of musical observations, musical experience, and out-of-school talent and involvement.
7. Many different activities may be going on at the same time in the Music Lab.
8. Student strengths are respected and are utilized in assisting other students, particularly in the area of skill development.
9. The nature of the various forms of involvement provides that each student can gain respect, both personal and from his peers, as a musician and as a creative individual.

Obviously such a forward-looking program demands specific physical considerations. In order to allow for student freedom there must be a high level of organization in the class structure and material preparation. Basic materials, equipment, and the environment must be compatible with needs. Areas of the room should be established as specific stations for musical activities. This reduces "wandering" and confusion in classroom operations. Acoustical problems can be minimized by four fairly economical means. The floor should be covered by a wall-to-wall carpet; the ceiling should be sound absorbent; activity carrels should be used in corners; and the inside wall surfaces of each carrel should be covered with sound absorbent materials.

To acquaint our teachers with the laboratory concept we identified specific stations[8] for composition, performance, listening, electronic music, reading, discussion and exploration of new sound sources. Further, each teacher was given a Workshop Log[9] to record her daily activities and discoveries. These personal accounts of daily involvement served as a developmental log for the teachers and as a basis for seminar discussions relevant to their needs and interests.

Team Teaching

Much of the success of our workshop can be attributed to cooperative planning, constant collaboration and unrestrained communication. We found the mutual exchange of ideas both stimulating and productive. Openness to each other's ideas allowed for objectivity in considering viable alternatives to basic questions. And, finally, we were always prepared to change the course of the workshop to meet the needs of the participants.

Our cooperative efforts enabled us to learn from each other, thus increasing our professional competence. The increased intellectual stimulation coupled with the confidence afforded by team teaching encouraged us to take greater risks in the experimentation of alternatives suggested by workshop strategies. This resulted in new discoveries, "peak experiences" and, at times, the realization that some alternatives were unproductive.

In addition, our team teaching allowed for: (1) a constant observer, both of the students and of the companion teacher directly involved with students in learning experiences; (2) a broader coverage of any subject in a discussion; (3) the advantage of supporting the interacting teacher with audio and visual aides; (4) a broader perspective for participants by exposing them to more than one teaching style.

Daily evaluation provided an opportunity to assess the effectiveness of workshop strategies and, in light of this, to plan for improved strategy design. The following kinds of questions seemed to be most productive: (1) What were our strengths and weaknesses? (2) Which activities were most valuable to the participants? (3) How could we structure the success factor of the strategies into new strategy designs? (4) How could we meet the individual needs of the participants more effectively? (5) Were we teaching and operating in a style we could advocate for others?

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[8] Appendix - Vol. I, A 6, A 8, A 9, A 13, A 14

[9] Appendix - Vol. I, A 7

The amount of time devoted to various workshop activities is shown on the August Workshop Schedule.[10] As indicated by this schedule, a great deal of time was spent in daily preparation. The reasons were: (1) Participating teachers were creatively involved in the planning of strategies. (2) A high degree of sensitivity and openness to each other's ideas was maintained. However, predetermined activities did not take precedence when "discovery" led us into new directions. We operated on the assumption that everyone has his own logic and that the best learning takes place when people, under guidance, are allowed to use and follow their own logic.

We feel we were more successful working together than we could have been working individually. It would have been much more expeditious had we divided the work, each accomplishing his own tasks. However, continuity would have suffered and the "peak experiences" which resulted from a deep sense of human commitment weeded with a love for music would not be on record. Madison Judson, Headmaster, the Fayerweather Street School, Cambridge, Massachusetts, stated: "The success of this workshop is not based primarily on the creative use of strategies, but on the fact that everyone is interacting on a very humane level." This comment was made to the workshop people at the end of his one-day visitation.

Follow-up Workshops

In addition to the two-week preparatory workshop, four one-day workshops and one week-long workshop were held throughout the school year. Tapes of all musical experiences and major discussions held during these workshops are contained in the music section of the CAREL Arts and Humanities Documentation Library.

The first follow-up workshop was held in October, 1968, to amplify teacher cognition and depth of perception. These meetings allowed teachers to share accomplishments and problems. Teachers developed confidence through this interaction which allowed for creative growth. Finally, these conferences afforded an opportunity to prepare new materials for classroom use and evaluation. This workshop focused on new sample strategies[11] (designed by the CAREL Music Staff) which reflected felt needs as expressed by teachers and students during our classroom visitations. The November workshop dealt with new vocal strategies to supplement the work carried out by students with instruments, objects and tape recorders. The December workshops were devoted to individual teacher conferences to determine individual teacher strengths and problems so that the CAREL Music Staff could play a more direct and meaningful supporting role.[12]

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[10] Appendix - Vol. I, A 5

[11] Appendix - Vol. II, A 4

The Interim-Developmental Workshop, held for a one-week period in February, 1969, was a significant departure from all previous workshops. A multi-arts approach to providing teachers with a basis for devising meaningful learning experiences for their children was considered. CAREL staff members from the art, dance and literature components guided our teachers through basic experiences in their respective disciplines.[13] The immediate and long-range effects are noteworthy: (1) Teachers discovered they could adapt themselves easily and freely to the related arts. (2) They were able to identify and appreciate commonalities among the arts. (3) They were able to perceive and design learning strategies in music from their experiences in art, dance and literature.

A good deal of the impetus for the Multi-Arts workshop came from the classroom atmosphere and teaching style of one of our classroom teachers - Mr. Dennis Bryan, who teaches sixth grade at the Armistead Elementary School in Baltimore, Maryland. Mr. Bryan had a predilection for an arts and humanities approach and convinced the CAREL Music Staff by the attitudes and behavior of his children that this approach should be shared with all our teachers. Mr. Bryan was subsequently invited to conduct a full morning session of the Interim-Developmental Workshop in the techniques and procedures of his approach.

The final follow-up Workshop, held in March, was devoted to the revised listening guides and their use in identifying other inherent concepts in music.[14] While it is too soon to fully evaluate the efficacy of this further extension of the program, early reports from teachers and classrooom observations by the CAREL Music Staff indicate that these revised listening guides will assist teachers in developing greater proficiency in analytical and judician perception.

Teacher's Role

The success of the program depends upon the sensitivity and competencies of the teacher. The teacher must realize that she is dealing with other human beings, and not simply with abstract concepts. Her job is to be familiar with each child's problem and limitations and to design situations in which the student will first discover the problems or limitations and then begin to search for solutions. Maximum attention to each learner, therefore, is a necessity.

Only if the teacher is herself engaged in artistic exploration and growth can she expect to encourage and guide the growth of others. The music workshop immersed teachers in the creative process and encouraged artistic exploration and growth in a non-judgmental climate.

The teacher serves as a guide, a resource person, a creator of problems, a stimulator for creative thinking. She does not teach facts, but a method of working and a method of discovering and solving problems. The teacher does not have the answer; the answers are different for each learner.

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[12] Appendix - Vol. II, B 5

[13] Appendix - Vol. I, A 15

[14] Appendix - Vol. I, A 11 and 12

CURRICULUM DEVELOPMENT AND CONTENT

Field School Participation

A total of 689 students representing four separate school systems participated in the developmental phase of the CAREL Music Curriculum for Young Children. The Washington, D. C. Public School System was represented by 247 students from 5 different schools; the Baltimore Public School System was represented by 380 students from 2 different schools; the Montgomery County Public School System was represented by 37 students from 1 school, and the Washington International Bilingual School (a private school located in Washington, D. C.) was represented by 25 nursery school children. Participating students ranged in age from 2 to 13 years and represented a wide spectrum of socio-economic levels. The nursery and kindergarten children attended school in half-day sessions; the remainder of the students in the program attended school in full-day sessions.

Musical Instruments, Audio Equipment, and Tapes

The feasibility study (page 5 of this report) revealed that students were extremely sensitive to quality sound and demanded good sound-producing materials soon after their school music experiences began. Therefore, the musical instruments provided by the CAREL Music Component to participating schools for student use were selected with the following criteria in mind: (1) that their tone quality be pleasing and stimulating; (2) that they present no insoluble technical problems; (3) that they vary in timbre, materials and construction; (4) that they enhance creative experimentation and exploration by offering a wide range of sound variation. The application of these criteria resulted in a wide assortment of wind, percussion and string instruments scaled down to the students' size.[1]

Students subsequently became musically involved by exploring and manipulating the huge array of instruments found in their classrooms. Their involvement emerged, for the most part, from a natural curiosity to experiment with the new sound sources. We suggest, therefore, that the learning environment be replete with sound-producing materials of sufficient quality to stimulate and sustain the natural inclination of young students to investigate new phenomena.

The tape recorder proved to be an invaluable commodity in this educational environment. It was used to record and play back student compositions, to codify musical ideas, and as an instrument to produce, modify and extend sounds in a number of unique ways. Students found that discovering sounds and organizing them with the tape recorder was as satisfying as performing on conventional or unconventional sound-producing equipment.

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[1] Appendix - Vol. II, A 1

Many of our teachers did not have a tape recorder available to them when needed. In addition, most of these tape recorders did not meet minimum standards for sensitizing students to appropriate concepts in sound reproduction. Therefore, the CAREL Music Component requested and secured from the United States Office of Education, Division of Educational Laboratories, sufficient funds to purchase enough tape recorders to equip our experimental classrooms.

The phonograph proved to be a functional asset in classrooms where it existed. It was used principally as a focus for a record library center where students listened to records individually or in small groups. Interestingly, students also found the phonograph to be an intriguing source for sound manipulation.

In classrooms where phonographs did not exist, adequate compensation was made through the use of the tape recorder. Listening tapes, consisting of short musical examples representing a comprehensive coverage of periods, styles and idioms, were made available for listening pleasure and musical stimulation. In addition, tapes of children's songs sung by children and accompanied by professional musicians served to assist classroom teachers who tended not to engage their classes in singing. These tapes were used to accompany singing, as background music during play period, and, in some cases, as alternatives in listening material. Undoubtedly these teachers will discover other productive uses for these prepared materials before the school year comes to a close.

Electronic Music

A major objective of the CAREL Music Curriculum is to develop children's sensitivity to sounds and sound ranges. This is accomplished best when children are free to create and manipulate sounds for themselves. This, in turn, aids children in developing their ability to organize sounds into personally meaningful structures.

Young children are not sufficiently developed in muscular strength and control to satisfy their curiosity with the conventional instruments of the brass and woodwind genre. Therefore, young children are limited to string instruments scaled down to their size and percussion instruments. While these instruments offer a variety of musical possibilities, the sound ranges are limited. Children themselves have discovered this and have requested a wider range of sound sources.

The electronic music laboratory is a recent development in music. A variety of electronic devices such as synthesizers, tape recorders, ring modulators, sound wave generators, filters, mixers, oscilloscopes, etc., have provided composers with unlimited possibilities for sound production and organization. More recently, a few secondary schools throughout the country have been experimenting with electronic compositional techniques. The Masterman School, a public junior high school in Philadelphia, Pennsylvania, is such a school. Andrew Rudin, Director of the Electronic Music

Studio, Philadelphia Musical Academy, commenting on the program at the Masterman School, said, "The students involved in the Masterman School's electronic music project are living proof that the supposed gap existing between the artist of today and his public need not exist, and will very probably almost cease to exist in a generation. These students, given the opportunity to working in pure sound (much as a painter works directly with paint on canvas) and without the necessity of learning the elaborate symbol system of traditional notation have produced music that is astonishing in its imagination and very unselfconscious in technique. It is almost frightening to contemplate what results these young composers would achieve if given a full-scale synthesizer to work with. The dozens of pieces produced already belie the crudity of the machines used: Their very limitations are used by young ears as assets."[2] Encouraged by the results of these junior high school students and others like them, we decided to conduct a feasibility study to determine whether younger students could extend their sound ranges and organizational possibilities into meaningful structures through the use of electronic devices.

Therefore, an experimental electronic music laboratory was established in one of our second grades. The selection of appropriate electronic devices for this class was based on variety, intrinsic worth and adaptability to the purposes of the children. These electronic devices served as the basic equipment in the second grade electronic music laboratory.[3]

Classroom experimentation with the electronic music laboratory began in late March 1969. While considerable planning preceded the implementation of this experimental program, only preliminary guidelines and basic ideas were established as a point of orientation. The guidelines and ideas related directly to classroom environment. It was decided that the class operate in a laboratory manner and that students be given considerable freedom in their creative pursuits. To make the best use of available space and facilities, the classroom was reorganized to provide for an electronic music center. And finally, it was decided to withhold the more sophisticated electronic equipment, e.g., tone generators, oscilloscopes, etc., until students had gained operational control of some of the simpler electronic devices, e.g., sound-on-sound tape recorders, portable tape recorders, headphones, mixers, etc.

As a result of student interest, enthusiasm, adeptness for technological manipulations and creative energy, it was necessary to supply these second graders with the remaining inventory of electronic equipment much more quickly than initially anticipated. Within a two-week period, all available electronic equipment was operated completely by these seven- and eight-year-old students.

At this writing, the experimental electronic music laboratory has been in existence for six weeks. In this brief period, the following outcomes can be identified: (1) These students have developed a deeper understanding of the physical nature of sound. (2) They have become familiar with some aspects of modern technology. (3) They have developed a sense of electronic devices as potentially useful tools in creative work. (4) They have developed a heightened awareness of sounds in the environment, including, but no longer restricted to, the sounds of conventional musical instruments. (5) They have used their visual and tactile senses to clarify and reinforce aural concepts. These students, in short, have demonstrated that children as young as seven years of age can manipulate electronic devices at a level of control which yields positive attitudinal, cognitive and aesthetic results.

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[2] Hagemann, Virginia, "Electronic Composition in the Junior High School," Music Educators Journal, Vol. 55, Number 3, (November, 1968), p.86.

[3] Appendix - Vol. II, A 2

Developmental Phases of Musical Exploration

Joanna Parker is five years old. She transferred from Backus Village Gate to our morning kindergarten class. Joanna was an unhappy girl and was apparently having as much difficulty relating to her peers in her new environment as she did in her last. She uttered not a word for over a month, but gradually began to lift her head away from her chest high enough to glance around the room and catch a glimpse of her classmates exploring instruments every which way, improvising music of their own, and playing their music in front of a strange machine that played it back to them.

She was still shy and very withdrawn, but as the days slipped by her glances became serious observations as she inconspicuously began to move about the room to get a closer look at all the activities. She observed Michael busy with the bongo drums and overheard him say to a group of his friends, "Don't bring all that work over here near me - I'm practicing. I'm trying to get a good beat and that's hard!" Michael's friends respectfully took their instruments to work near the flannel board. Joanna wandered over to a group of students who had just listened to "Hoedown" by Aaron Copeland. She caught some of the responses. "It makes me happy it sounds so good." "It makes me want to jump up like the instruments did." "It makes me want to dance all around the living room." "It makes me want to dance on my head, on my toes, on my thumb." "How about your nose?"

On another day she carefully moved to an area in the room where a group of students playing familiar and unfamiliar instruments were struggling to follow two youngsters who were waving their arms wildly in the air. Finally, the flagging limbs ceased and the sounds dwindled away. David promptly addressed the two conductors, "I can't play two ways at once." The next time around Lisa played the role of the conductor.

> Joanna's curiosity and growing enthusiasm got the best of her. Within a short period of time she became an avid explorer in the world of sound, a contributor to the sound materials center, a participating performer, and a sensitive listener. Joanna communicated first with sounds she was able to offer and arrange into forms pleasing to her and acceptable to the other students. She grew in confidence and increasingly became more active when interacting with her environment and peers. By the standards of her classmates, Joanna is considered a leader. More important, she now senses her own personal power as an imaginative and creative person.

The foregoing suggests that the education of the young child is nurtured, on the one hand, by constant experimentation with the objects and materials in his environment and, on the other hand, through interaction with other persons. He begins to develop musical insights, powers and skills through the manipulation of sound sources, aided by his tremendous curiosity about the unknown. Experimentation gradually becomes more purposive and controlled - each student producing recognizably different music from that of the other students.

Children are interested in the playing of others and learn much from them. In early group work they play quite separately from each other. However, as they gain experience in playing together, group improvisation reaches a level of integrated response - it becomes a kind of communication for the group. Out of this synergy musical ideas evolve and, in subsequent activities, are nourished and brought to new levels of refinement.

These observations of student involvement in the early stages of this program indicate that certain psychological and social factors relate to the production of music and to increased understanding of it. Thus, we began to identify developmental factors which were formulated into an operational schema which we call The Developmental Phases of Musical Exploration.[4] Initially, the purpose of this schema was to assist the teacher in designing strategies appropriate for guiding her students through the various phases of musical exploration.

The Developmental Phases of Musical Exploration identifies and describes six distinct phases of the creative process. Our experience has shown that the fostering of creativity among children is not contingent upon strict adherence to a given sequence of these phases. Varying levels of musical knowledge, intuition and interest are but a few of the factors which account for idiosyncratic patterns of thought and process. However, it was noted that most children engaged in a common sequence of phases. On the basis of this empirical evidence, therefore, we submit that the following sequence of phases is the most natural and productive for young children: (1) free exploration; (2) guided exploration; (3) free improvisation; (4) planned improvisation; (5) reinforcement; (6) evaluation.

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[4] Appendix — Vol. II, A 3

The first phase of the creative process is free exploration. This is the period which gives the student an opportunity to discover and explore a wide variety of sound-producing materials without predetermined goals. His explorations are intrinsic, i.e., they are motivated largely by his natural curiosity to probe and to experience the unknown. Much of Piaget's work on concept development indicates that the child learns to understand his environment by what he does to it, not vice versa. Therefore, the sounds the student makes himself should be the starting point.

In free exploration, then, the student should be encouraged to explore the full range of sound sources and to share his discoveries with the class. Our experience has shown that students will experiment endlessly with their capabilities for producing sound. Reproducing certain sounds over and over again gives them clearer understanding, better control and a great deal of personal satisfaction. The more extensive these initial experiences are, the more intensive future explorations with new objects and instruments will become.

The second phase is that of guided exploration. As an extension of free exploration, strategies[5] and materials are designed in this phase to encourage and guide the student to investigate his sound-producing materials in greater depth. The motivation for these activities is extrinsic, i.e., the teacher guides the student in discovering other exploratory possibilities in a non-judgmental atmosphere. The results are that the student accumulates a vast number of aural and physical sensory impressions which add to his ever-increasing frame of reference.

The third stage of the developmental phases of musical exploration is free improvisation, or, in a sense, exploratory improvisation. At this stage the student begins to organize his acquired sounds into a variety of freely structured schemes. This represents the student's intrinsic concern for creative expression at ever increasing levels of sophistication and refinement. Some of the musical outcomes are accidental, others are intentional. He learns by imitation and by adapting ideas to his own manner of sound production and sequence. As he gains in knowledge and control he begins to develop a personal idiom or style that lends itself readily to group improvisation.

In the early stages of group improvisation, each student is primarily interested in his own unique contribution and is likely to go his own way, obliterating all competition or interference. However, as this activity is prolonged over a period of time, the student becomes increasingly sensitive to the sounds around him and begins to relate to them. Group improvisational characteristics begin to take shape and often evoke heightened emotional responses.

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[5] Appendix - Vol. II, A 4

The fourth phase of this process is planned improvisation. As in guided exploration, the motivation for this phase is largely extrinsic, i.e., the student is given some limitations by the teacher. At times, the student may set limitations for himself. The purpose of posing limitations is to assist the student in organizing his musical ideas in a variety of expressive and meaningful ways. He draws from his bank of accumulated sounds and ideas to make musical judgments regarding these problems. The sophistication of the problems set before the student, therefore, is dependent on his level of musical understanding and experiential frame of reference.

The fifth phase is reinforcement. Here the student's attention is directed to other musical possibilities which require more intensive investigation. Listening examples representing a broad spectrum of musical periods, styles and practices are introduced to further extend the student's frame of reference and new strategies are designed to intensify and broaden the student's musical insights, so that he becomes aware of new exploratory and improvisational possibilities - thus recycling the whole creative process.

The sixth stage of the developmental phases of musical exploration is evaluation. This process is not discrete and separate from the first five phases, rather it is inherent in all of them. Evaluation encourages the student to identify musical experiences which are satisfying to him as well as those which are not. To assist the student in this process, all musical experiences are recorded for playback. When appropriate, quantitative and qualitative aspects of musical results are discussed analytically, judicially and creatively.

The Developmental Phases of Musical Exploration has proven to be a highly productive schema. It has assisted teachers in identifying essential and distinguishing characteristics within the creative process. It has aided teachers in assessing student responses and levels of involvement. And it has become the core of an operational reference to guide, shape and stimulate continued growth. As productive as this schema has been, however, further investigators should be sensitive to the possibility of identifying other developmental needs in children and other educational vehicles for assisting children in fulfilling their needs.

EVALUATION PROCEDURES AND FINDINGS

As explained in the rationale of this report, the CAREL Music Curriculum for Young Children emphasizes breadth of experience rather than sequence of structure. This goal, broadly defined, implies that the learning environment should develop the student's sensitivity to sounds and sound ranges, develop his ability to organize sounds into personally meaningful structures, and should teach the student to utilize his sensitivities to create and manipulate sounds into meaningful forms for himself. With this operational rationale in mind, it was decided that the student's judgments, efforts and accomplishments would be measured against his own developing insights rather than against static or imposed views. Therefore, it was considered unfeasible to identify objectives in terms which would quantify expected outcomes.

Before constructing new evaluative instrumentation to measure the direction, nature, and intent of both teacher and student growth, we asked twenty-nine musicians and music-educators throughout the country to react critically to our stated goals.[1] In all cases these professional musicians and educators responded positively to our goals. The principal expressed concern was that we specify and quantify these goals as research findings allow.

Procedures and Findings for Teachers

The principal procedures for evaluating teacher growth and effectiveness were questionnaires, classroom visitations, individual teacher consultations and experience reports. These materials, in addition to reflecting teacher attitudes and behavior, served to demonstrate the effectiveness of the CAREL Music Curriculum teacher preparation program. For example, the Questionnaire for Participant Teachers to Help CAREL Improve Future Music Workshop Programs [2] asked teachers to rank the most important gains they believed their pupils would achieve as a result of their having attended the CAREL Music Workshops; to indicate whether or not there was a better way to prepare teachers to teach music to their students; and what CAREL might do to improve its future preparation of teachers. The gains identified by teachers were commensurate with the goals mentioned earlier; all teachers felt the CAREL approach to preparing teachers for teaching music was excellent; and suggestions for what CAREL might do to improve its future preparation of teachers ranged from more effective communication between the CAREL Music Staff and participating school administrators and staffs to more consideration for a multi-disciplinary approach.

A Classroom Observation Schema[3] was designed to: (1) better understand the teacher's frame of reference when she discussed her classroom experiences, (2) identify those success factors which were common to all classrooms,

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[1] Appendix - Vol. II, B 1

[2] Appendix - Vol. II, B 2

[3] Appendix - Vol. II, B 3

(3) identify unique factors which contributed to the success of a program in a particular classroom exclusive of teacher idiosyncracies, (4) determine the degree to which each student senses his own personal power as an imaginative and creative person, (5) identify the operational level of each teacher. This schema proved to be invaluable for identifying the factors mentioned above.

The Individual Teacher Conferences Form[4] was designed to determine: (1) to what extent teachers involved their students in the CAREL Music Program, (2) what the CAREL Music Program meant to the teachers, (3) what difficulties teachers encountered in implementing the CAREL Music Program, (4) what the most successful characteristics of the program are in terms of pupil involvement, strengthening other areas of study, and in the variety of musical experiences, (5) how the teachers felt we could assist them further in developing a meaningful music program for their students. Teachers reported 100% pupil involvement in the CAREL Music Program. As far as personal meaning is concerned, teachers said they were "feeling life through music." Some of the problems identified by teachers in implementing the program were lack of sufficient space and time. Many teachers stated that they were coordinating music with social sciences, general science, art and literature. And finally, teachers asked for a greater variety of instruments, tape recorders, and workshops for other interested teachers in their schools.

First-year Experience Reports[5] were requested from all participating teachers. These reports were intended as comprehensive summaries of each classroom situation. The guidelines for these reports asked for comments on new personal and student realizations of self, grouping patterns among students in a variety of learning situations, important outcomes of the music program, the most meaningful musical experiences, and sound sources most appropriate to various grade levels. Most of the Experience Reports were not received from participating teachers at the time of this writing. The few we did receive, however, indicated positive teacher and student gains in terms of developing a sense of power as creative and imaginative people; grouping patterns which seem to vary from one level of musical involvement to another; and some notions of relevant strategies and sound sources to be employed at various levels. Greater perception and specificity in these categories should materialize as more reports are received from teachers.

Procedures and Findings for Students

The principal procedures for evaluating student growth patterns and direction were a pretest and posttest, classroom observations, and tapes of musical experiences submitted by teachers. Before administering the pretest, we obtained all pertinent student data.[6] Next we made a detailed check list for administering the test in an effort to control all variables.[7] And, finally, a random sampling technique was devised to secure six students from each of ten classrooms.[8]

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[4] Appendix - Vol. II, B 5

[5] Appendix - Vol. II, B 7

The pretest and posttest were divided into two parts. The first part was a student questionnaire[9] which was designed to determine the student's frame of reference; to assess analytical, judicial and creative thinking; to determine to what extent the student was involved as a musician, i.e., composer, performer, conductor, critic; and to identify attitudes related to these activities.9 The verbal responses by students differed markedly on this portion of the pretest and posttest. The pretest (administered on September 16-20, 1968) revealed that the students' frames of reference generally were limited to traditional school music activities, viz., singing, listening and tuneful melodies. Their responses to new musical stimuli generally had little or no musical referral. Comments such as, "That was weird." "Sounds like something from outer space," were commonplace. And in most instances students indicated they had done no composing, no conducting, very little performing except in singing, and very little critical listening.

The posttest (administered on April 21-28, 1969) revealed that students had experienced a broader range of musical experiences. Newly acquired preferences in music were the playing of a wide variety of musical instruments, a tolerance and openness to new and strange sounds, composing music on their own, and electronic music. When exposed to new musical stimuli on the posttest, students generally responded with music referral, i.e., they identified musical instruments, made positive aesthetic statements, and identified elements of form. Practically all students said they had composed music of their own, conducted, performed on a variety of sound sources, and listed critically to a great deal of music - both original, recorded, and live (professional).

The second part of the pretest and posttest was an aural test[10] which was designed to assess the students' level of operation and to measure their sensitivity to two musical stimuli, viz., ostinatos. (Taped responses of all students to the aural tests are contained in the CAREL Arts and Humanities Documentation Library.) It was thought that students would relate more naturally to an ostinato with a programmatic verbal idea. Therefore, one ostinato was given a programmatic idea which was read to all students and the other had no programmatic connotation.

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[6] Appendix - Vol. II, B 8

[7] Appendix - Vol. II, B 9

[8] Appendix - Vol. II, B 10

[9] Appendix - Vol. II, B 11

[10] Appendix - Vol. II, B 12

The results of the pretest showed that twelve of the sixty students tested did not respond to the aural portion.[11] Of these twelve, nine were unresponsive to the programmatic ostinato. Furthermore, of twenty-one control students who were administered the posttest, nineteen responded to the ostinato without the programmatic idea. Therefore, we must seriously question whether young children generally are indeed motivated sufficiently by extra-musical ideas or whether the music itself supplies adequate intrinsic stimulation.

Applied responses fell into several categories, viz., no response at all, imitation of the ostinatos, random playing - unrelated, random playing - somewhat related, strict metrical groupings, and assymetrical rhythmic groupings. While twelve students did not respond at all to the pretest, only three of these twelve did not respond to the posttest. Further analysis of the aural results by a number of musicians and music-educators is needed to draw relevant conclusions and/or directions.

Presentations of the CAREL Music Curriculum

Presentations and demonstrations of the CAREL Music Curriculum were given at Sarah Lawrence College, the University of Delaware, the Arizona State Music Educators' Association, the University of California at Berkeley, MENC Eastern Conference, Pennsylvania State University, New York State University College at Fredonia, East Silver Spring Elementary School PTA (Silver Spring, Maryland), the National Association of Elementary School Principals, and the University of Maryland.[12] In all instances mentioned above, the CAREL Music Staff was invited to share the findings of its developmental program to date. We eagerly accepted these invitations as opportunities to test our goals, concepts and procedures against those practiced by our colleagues in different parts of the nation. While healthy and stimulating debates evolved in some of these situations, it was generally agreed that the CAREL Music Curriculum has a sound rationale, a good research design, and a meaningful objective - the improvement of educational opportunities in music for young children.

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[11] Appendix - Vol. II, B 13

[12] Appendix - Vol. II, B 14

RECOMMENDATIONS FOR FURTHER CURRICULUM DEVELOPMENT

Pilot Curriculum

As evidenced by the material contained in the body and appendices of this report, a substantial amount of pertinent data has been gathered during the developmental year. A rationale has been formulated which underlies the entire operation and offers direction for educational emphases. An effective and viable format for preparing teachers to work with the objectives and processes of the curriculum has been developed. Although the objectives have been stated at an intermediate level of specificity, they are concrete enough to serve as indicators of goals for instructional cycles, units, experiences, etc., and offer substantive guidelines for lesson plan development and goal sequences. And finally, some evaluative instrumentation has been devised which has begun to assess the students' level of operation and sensitivity to musical stimuli.

Cognizant of the above, it is recommended that the next step be a refinement of the accumulated data into a process-model pilot curriculum. Processes for classroom activities should be outlined and prepared for teachers' use. These processes should include strategies and procedures which were judged most effective in the developmental phase plus newly devised strategies and procedures. Also evaluative instrumentation for specific assessment of student growth should be designed.

A Multi-Arts Approach

Particular attention should be given to the feasibility of incorporating music into a multi-arts core curriculum as a basis for providing classroom teachers a wider range of learning experiences for students. Our limited work with a multi-arts approach has shown that classroom teachers can perceive and appreciate commonalities among the arts and can easily adapt themselves to the discrete and separate characteristics peculiar to each art form. We have seen many convincing examples of teachers and students, working effectively in one art form, extending their creative thoughts into other art forms. This interaction and manipulation of the materials of the various art forms resulted in heightened sensitivity. Our conclusion is that all art forms are equally essential for healthy emotional and intellectual growth and, therefore, should be central to the learning process for young children. We recommend that future efforts be made to develop the present stage of the CAREL Arts and Humanities Program into a multi-arts approach.

Teacher Selection

Classroom teachers and music specialists representing a cross section of urban and suburban schools plus a host of divergent teaching styles should be selected to work with the pilot curriculum in the demonstration stage. This group of teachers should include initial teachers trained in 1968, plus new teachers. Ideally the new teachers should teach in the same building at different grade levels for the following reasons: (1) to share instruments, equipment and materials; (2) to share and reinforce observations from each others' classes. Further, this school could be utilized for general workshops and serve as the principal demonstration center.

The role of both teachers and staff should be clarified. Teachers should be expected to: (1) attend all workshops, (2) submit comprehensive reports as requested, (3) share significant findings with other participant teachers. The responsibilities of the staff are to: (1) organize presentation of materials at workshops, (2) establish classroom observations and teacher consultations, (3) continually refine and develop the music curriculum.

To further refine and develop the curriculum, attention should be given to the following: (1) follow-up workshops, (2) individual teacher consultations, (3) individual case studies, (4) classroom observations, (5) aural and video taping. Follow-up workshops should focus on general problems and interests. Also, they should introduce new strategies and developments. Individual teacher consultations should relate to specific teacher limitations and problems. Individual case studies could provide an opportunity to probe a wide spectrum of learning styles and behaviors. Classroom observations should indicate which learning experiences are most effective at various grade levels. And finally, aural and video taping should capture the essence of the creative process for careful and systematic analysis. All of these activities should be considered essential for gathering data pertinent to the final design and formulation of the music curriculum.

Dissemination

Dissemination should be carried out on several levels. Articles explaining the nature and scope of the program should appear in leading educational journals, as well as those concerned with particular art forms. The process for training classroom teachers should be implemented in teacher training institutions for pre-service purposes. Finally, local and state school systems should be encouraged to finance and provide sufficient personnel to function as specialists for staff development.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

Appendix - Vol. I Music

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A. Classroom Teacher Preparation

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CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

MUSIC

DATA REQUEST FORM

Teachers

1. Name

2. Home address and telephone

3. Are you the classroom teacher or a music specialist? Other?

4. What are your experiences in music?

   music education?

   General courses in music appreciation, etc.?

   Instrumental, singing, or other professional training in music?

5. What formal or informal musical activities have you engaged in during the past 6 months? (group or solo singing; instrumental work; concerts; composition, etc.)

6. Roughly how many years have you taught music to children?

7. What is your chief professional competence?

School

8. Name

   Address

   Telephone

   Name of Principal

9. Size of student body

   Number of teachers

   Number of classes

   Special teachers - music, counselor, librarian - special project connections

DATA REQUEST FORM - continued

Student Group

10. Approximate age and grade range of children

11. Type of classroom organization, team-teaching, self-contained, non-graded

12. What is the general intelligence curve of the class?

13. What are the grouping patterns in your school?

14. Are the most musical children those with the highest I.Q.'s and verbal capacity?

15. Describe the music program in your school in terms of scheduling, instruction, involvement of classroom teacher, etc.

15. Types of occupations of parents

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY
ARTS AND HUMANITIES CURRICULUM PROGRAM

MUSIC
Field Schools Participating

December 1968 - May 1969

School	Grade	Number of Pupils
District of Columbia		
Bancroft Elementary (64 pupils)		
Kathy Bryan	3	34
Dolores Francis	2	30
Harrison Elementary (24 pupils)		
Allie Robinson	4	24
LaSalle Laboratory School (41 pupils)		
Marcellina Jackson	K	20
" "	K	21
Morgan Elementary (92 pupils)		
Sarah Daye[1]	(3-4)[2]	19
" "	6	24
" "	6	24
" "	(1-2)	25
Raymond Elementary (26 pupils)		
Donna Ploss	2	26
Model Schools - Innovation Team: Washington International (25 pupils)		
Mrs. Rosemary Taft	Nursery	25
Maryland		
Baltimore:		
Music Supervisors		
Alice Beer		
Constance Pawlek		
Armistead Elementary (32 pupils)		
Dennis H. Bryan	6	32
City Springs Elementary (25 pupils)		
Patricia Wilson	2	25

---

[1] Specialist: music teacher

[2] (   ) = grouped class

MUSIC - Field Schools Participating

School	Grade	Number of pupils
Maryland -- Continued		
Baltimore City Music Dept. (323 pupils)		
Gay Teran[1]	K	18
" "	K	18
" "	1	24
" "	1	24
" "	1	24
" "	1	24
" "	(5-6)[2]	24
" "	5	24
" "	4	24
" "	4	24
" "	3	24
" "	3	24
" "	(2-3) SE[3]	18
" "	1 SE	18
" "	1 SE	11
Montgomery County:		
Washington Grove Elementary (37 pupils)		
Louise Minton	(2-6)	12
" "	(4-5-6)	12
" "	(4-5-6)	13

Total Pupils in Music

D.C. = 272 pupils
Md. = 417 pupils

689 pupils

---

[1] Specialist: music teacher

[2] ( ) = grouped class

[3] SE = special education class

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

ATTITUDINAL ASSESSMENT INSTRUMENT

Name (or Number) ______________________ Date ______________

Complete each of the following sentences, and add another sentence:

1. The best thing about music is ____

2. My interest in music is ____

3. Good musicians ____

4. Composing music of my own ____

5. A music curriculum is ____

Three short musical excerpts will be played. In writing about each composition, continue to complete the sentence and add another.

6. This piece ____

7. This piece ____

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

MUSIC CURRICULUM WORKSHOP

August 12-23, 1968

CURRICULUM PLANS

CAREL MUSIC WORKSHOP

August 12-23, 1968

ENROLLMENT: 9 classroom teachers, 2 music teachers, 1 EDC Innovation Team Leader

TOTAL WORKSHOP TIME: 65 hours - two weeks plus an additional 90 hrs. of preparation.

DISTRIBUTION OF TIME:

50 hours - Exploration, Improvisation, Composition, Performance and Analysis

5 hours - Individual listening at stations set up with phonograph, recordings and listening guides

5 hours - Discussion - Impromptu and relevant to the need at the time

3 hours - Theatre Arts Improvisation

2 hours - Individual reading of recommended workshop literature

CAREL MUSIC WORKSHOP

August 12-23, 1968

CURRICULUM PLANS

Monday, August 12

I. Improvisation - Vocal introductions based on a tape loop.

- A. Tape loop serves as unifying element in the free improvisation.
- B. Each person superimposes his/her name in any shape or form as the tape loop goes on. A single name may be repeated as many times as desired. The general idea is to engage each person in a musical introduction.
- C. Tape the performance.
- D. Playback and discuss.
  1. List responses on board as to their analytical, judicial and creative connotations.
  2. Pass out copies of listening guide and mention daily use when listening to recordings selected from the discography.

II. Retrospection - Phase I (feasibility study) historical briefing

- A. CAREL's alliance with MMCP
- B. Procedures
- C. Outcomes

III. Projected Compositional Problem - Major Instrument

- A. Choose an instrument of your choice preferably one which you do not play. It may be selected from the CAREL instruments or some outside source, i.e., attic, friend's basement, etc. Consider the instrument as a major focus of exploration during the two-week workshop.
- B. Prepare a composition for the instrument to be performed on the last day of the workshop.

IV. General Operating Procedures

- A. Use station sheet provided to keep personal records of all activities. Turn in the sheets at the end of each day. We will make a copy and return it the next morning. It will serve as a Workshop Log. Feel free to ask or write down questions, comments, observations, complaints, and recommendations. You are the learner -- shape the situation to meet your needs.
- B. Return all instruments to tables, etc. at the end of each day.

C. Bulletin is for general use. Put up material of mutual interest, concerts, pictures, etc.
D. Day begins at 9:30 and ends at 4:00 with 1 1/2 hours for lunch.
E. No scheduled coffee breaks -- arrange individually during station modulation.
F. Locate stations by signs -- doors unmarked are not related to the workshop.

V. Compositional Stratege

A. Select an instrument in the room and plan an improvisation either as a solo or in a group.
B. Focus on the number of sounds possible with the instrument as well as sensitivity to appropriateness when working within a group.

VI. Compositional Planning and Personal Exploration

VII. Group Session

A. Perform and tape all compositions.
B. Playback and evaluate with listening guide at the board.
C. Request objects from home for Tuesday strategies.

Tuesday, August 12

I. Improvisation - Tape loop and object sounds.

A. Focus on the distinctive qualities of each object as it relates to the total musical framework.
B. Divide into three groups.
C. As one group improvises, a member of another group controls the dynamic level of the tape loop.
D. Playback from tape deck and evaluation with comments recorded on chalkboard in form of listening guide.

II. Projection - Phase II (Developmental Study)

A. Objectives
  1. Pre-cycle curriculum
  2. enlarged program of teacher training
  3. increased experimentation
  f. analysis of strategies
  5. refinement of materials of first year
  6. focus on process
  7. assess behavioral outcomes

B. CAREL and MMCP alliance through Phase II
C. Phase III - Evaluation year

III. Composition

A. Plan a solo or group improvisation using the objects brought from home.
B. Object sounds may be extended or altered electronically.

IV. Compositional Planning and Personal Exploration

V. Group Session

A. Perform and tape all improvisations.
B. Playback and evaluate with listening guide at the board.

Wednesday, August 14

I. Improvisation

A. Free improvisation using conventional and unconventional instruments set up beforehand.
B. Impromptu conducting as volunteered by workshop participants.

II. Compositional Strategy

A. Plan two improvisations using conventional and unconventional instruments and tape recorder.
B. Divide into two groups and select two conductors in each group.
C. Conductors/composers plan and rehearse the group.
D. Tape recorder considerations are loops and changing speeds.
E. Musical objectives are: 1. contrast in dynamics
2. contrast in timbres

III. Compositional Planning and Personal Exploration

IV. Group Session

A. Perform and tape all planned improvisations.
B. Playback and evaluate using listening guide at the board and focusing on the musical objectives stated under compositional strategy.

Thursday, August 15

I. Listening - Playback of recorded performances of previous day.

II. Discussion - Record keeping or Workshop Log

III. Improvisation

A. New timbre considerations for strategy used on Wednesday.
B. New volunteer conductors.

IV. Compositional Strategy

A. Plan two improvisations using conventional and unconventional instruments and tape recorder.
B. Divide into two groups and select two conductors in each group.
C. Conductors/composers plan and rehearse the group.
D. Tape recorder considerations are loops and changing speeds.
E. Musical objectives are: 1) contrast in dynamics 2) contrast in timbres

V. Compositional Planning, Rehearsal and Personal Exploration

VI. Group Session

A. Perform and tape all planned improvisations.
B. Playback and evaluate using listening guide at the board and focusing on the musical objectives stated under compositional strategy.

VII. Theatre Arts Improvisations

A. Coached by Bob Alexander from CAREL and Arena Stage in D. C.
B. Involved workshop participants and staff in theatre improvisations.

Friday, August 16

I. Listening - Playback of recorded performances of previous day.

II. Attitudinal Assessment Form

A. Sentence Completion
B. Listening with sentence completion
    1. Chavez, Toccata, 3rd movement
    2. Corelli, Gigue
    3. Von Weber, Rondo for Bassoon and Orchestra

III. Improvisation

A. Free improvisation using vocal sounds and extended vocal sounds
    1. One individual begins a sound.
    2. Next person imitates that sound and extends it until it becomes another vocal sound.
    3. The process continues and develops with each person.

IV. Compositional Strategy

A. Divide into groups.
B. Plan and rehearse a composition using vocal sounds, vocal extensions and sound on sound.

V. Compositional Planning, Rehearsal and Personal Exploration

VI. Group Session

- A. Perform and tape all planned improvisations.
- B. Playback and discussion with listening guide at the board.
- C. "Laughing Piece #1," a free vocal improvisation involving the entire workshop group.

Monday, August 19

I. Performance/Demonstration

- A. Kathy Bryan, participant performed vocal piece using several tape manipulations.
- B. Demonstrated her process which evolved from many hours spent beyond workshop time Friday evening.

II. Personal Exploration, Reading Listening and Practicing

III. Improvisation

- A. Vocal choir singing "Good Day" using random pitches.
- B. Vocal ensembles singing "Good Day" using random pitches on a moving curve cued by conductor.

IV. Compositional Strategy

- A. Each group plan a vocal improvisation for chorus and soloist.
- B. Conductors develop cues for:
  - 1. Direction of pitches
  - 2. Dynamics
  - 3. Articulation of words
- C. Title and text of composition is "Let it Happen."

V. Compositional Planning and Rehearsal

VI. Group Session

- A. Perform and tape all planned improvisations.
- B. Playback for listening and any discussion.
- C. Engage both choirs in "Let it Happen Together."

Tuesday, August 20

I. Improvisation - "Tuesday Morning Cantata"

- A. Recitative - "Good Morning" (started freely by Cole and Lee as participants arrived).
- B. Vocal line with same text but accompanied by instruments that we gradually gravitated to.
- C. Conductors direct as motivated by musical direction of group.
- D. Homophonic setting of "Good Morning" - Fine.
- E. Playback for listening.
- F. Evaluation and focus on:
    1. sections within the improvisation
    2. contrast between the sections
    3. how the total piece could be improved.

II. Compositional Strategy

- A. Plan an improvisation using members of your group as vocalists and instrumentalists.
- B. Use the musical materials that evolved from the improvisation.

III. Compositional Planning, Rehearsal and Personal Exploration

IV. Group Session

- A. Perform and tape all planned improvisations.
- B. Playback for listening and any discussion.

Wednesday, August 21

I. Listening - Playback of recorded performances of previous day.

II. Compositional Strategy - Functional Music

- A. Workshop participants divide into three groups.
- B. Each group selects one of the following titles for their composition.
    1. "Rosemary's Baby" (for R. Taft's expectant child)
    2. "Here Comes the Judge" (for Dolores Francis' traffic ticket)
- C. Choice of instruments left up to individuals.
- D. Conductor selected by group.

III. Compositional Planning, Rehearsal and Personal Exploration

IV. Group Session

- A. Perform and tape all planned improvisations.
- B. Playback for listening and any discussion.

Thursday, August 22

(visitor, Matt Judson, colleague of John Holt)

I. Improvisation

  A. View film which will serve as visual stimulus.
  B. Review sequence to be used.
  C. Free improvisation as sequence is seen once more.
  D. Volunteer conductor makes musical decisions and cues the instrumentalists.
  E. Playback and evaluation to determine feasibility of such a project in the classroom.

II. Improvisation

  A. Semi-planned with the following group responses:
    1. Chordal punctuations, staccato
    2. Solo instruments using voice or instruments
    3. trill or roll
  B. Title, "Introducing Matt Judson."
  C. Free choice of instrument.
  D. Individual's conduct as motivated.
  E. Playback and evaluation based on analytical, judicial and creative notions.

III. Improvisation

  A. Completely free improvisation to help release Matt Judson from his musical inhibitions.
  B. Free choice in performing roles, i.e., vocal, instrumental and conducting.
  C. Roles of performers could rotate.

IV. Discussion - Matt Judson

  A. Curriculum and the learner's environment
  B. Peak experiences

V. Workshop Extension (Party at Lee's apartment)

  A. Improvisations
  B. Performing
  C. Listening
  D. Eating and ____________

Friday, August 23

I. Attitudinal Assessment/Sentence Completion Form

- A. Sentence completion
- B. Listening with sentence completion
  - 1. Villa-Lobos, Bachianan Brasiliaras #5
  - 2. Dockstader, Electronic Piece #3
  - 3. Handel, Concerto Grosso in C Major

II. Discussion

- A. Brief definition of our role in the coming year as it relates to:
  - 1. support of any kind
  - 2. presentations and/or demonstrations
  - 3. monthly workshops
- B. Development of Assessment tool to measure student's growth.

III. Rehearsal and Personal Exploration

IV. Composition

- A. Each individual performs on the major instrument selected at the beginning of the workshop.
- B. Solo material is introduced.
- C. Final composition for "Solo Instruments and Orchestra" is shaped and conducted by visitor, Ronald Thomas.

AUGUST WORKSHOP SCHEDULE

A BREAKDOWN OF TEACHER TIME DURING WORKSHOP PERIOD AT CAREL

CATEGORY	AVERAGE TIME		
	Daily	Per Week	Total for 2-Week Period
1. Total workshop time for interaction with participants.	6-1/2 hrs.	32-1/2 hrs.	65 hrs.
2. Planning involved in preparing learning materials, such as tapes, equipment, listening guides, workshop logs, etc.	1	5	10
3. Review and evaluation of listening guides, workshop logs and comments written or discussed by participants.	3	15	30
4. Review and evaluation of strategies.	2	10	20
5. Development of strategies.	3	15	30
6. Total teacher-time spent during workshop period.	15-1/2 hrs.	77-1/2 hrs.	155 hrs.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

DEFINITION OF STATIONS

GROUP S - 601 B

COMPOSITION STATION
Location of most instruments for individual or group planning and rehearsing.

DISCUSSION STATION
A place to talk about the development of curriculum plans as applicable to your own situation or any other pertinent discussion that evolves from the workshop.

ELECTRONIC MUSIC STATION
Tape recorders and phonographs set up for exploration of electronically produced and electronically altered sounds. Available for compositions.

EXPLORATORY STATION
Sample instruments selected from different percussion categories for investigation.

LISTENING STATION I
phonograph and recordings set up for recommended listening.
LISTENING STATION II
Tape recorder and tapes set up for recommended listening.

PERFORMANCE STATION
Area designated for performances of compositions.

READING STATION
Location of recommended workshop literature to be read at that station.

SKILL STATION
An area to practice the instrument of your choice and manipulate some basic tape techniques.

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WORKSHOP LOG

NAME ____ DATE ______________

1. COMPOSITIONAL STATION

2. DISCUSSION STATION

3. ELECTRONIC MUSIC STATION

4. EXPLORATORY STATION

5. GROUP STATION

6. LISTENING STATION

7. PERFORMANCE STATION

8. READING STATION

9. SKILL STATION

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

1968 Music Curriculum Workshop

BIBLIOGRAPHY (for pre-Workshop study)

Bruner, Jerome S. *The Process of Education*. New York: Vintage Books, 1963 (Paperback. $1.35)

Bruner, Jerome S. *Toward a Theory of Education*. Cambridge, Mass.: Harvard Univ. Press.
($3.95)

Bruner, Jerome S. *On Knowing*. New York: Atheneum Press.
(Paperback. $1.45)

Contemporary Music Project. *Report of the Seminar on Comprehensive Musicianship*. Washington, D.C.: Music Educators National Conference. 1965.
($1.50)

Ernst, Karl and Charles Gary. *Music in General Education*. Washington, D.C.: Music Educators National Conference. 1964.
($2.50)

Paliska, Claude. *Music in our Schools: A Search for Improvement*. (Yale Seminar Report) Washington, D.C.: Bureau of Publications, U.S. Government.
($0.30)

Schools for the Sixties. (NEA Project on Instruction). New York: McGraw-Hill Book Co., 1963.
($2.45)

The following articles are recommended for reading from the *Music Educators Journal* for the month and year indicated:

April-May, 1965:	Keller, C.R. "The Educational Revolution in Music" Fowler, Charles. "The Misrepresentation of Music"
June-July, 1965:	Parnes, S.J. "Nurture of Creative Talent"
Sept-Oct, 1965:	Mueller, John. "The Arts and the Individual" Leonhard, Charles. "Philosophy of Music Education"
January, 1966	Reimer, Bennott. "The Curriculum Reform Explosion and the Problem of Secondary General Music"
Feb-March, 1966:	Ellena, W.J., and Finis Englemann. "Man's Tomorrows" "The Baschet Instruments-Structures for Sound"

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

GLOSSARY OF TERMS

HEADS - Tiny electromagnets that pick up the material recorded on the tape or erase the material that has been recorded on the tape.

HALF-TRACK HEAD - This variety divides the tape into two parts, so that you play one side and then turn the tape over to play the other side.

QUARTER-TRACK HEAD - This variety divides the tape into four parts. Two recording tracks become available to you on each side of the reel.

SPLICING - Cutting the recording tape and then rejoining it with an adhesive tape of special design.

TAPE SPEED SELECTOR - Selects tape speed of either 7 1/2 inches per second (when better sound quality is desired) or 3 3/4 inches per second (when longer recording time is desired).

TAPE COUNTER - Indicates the amount of tape used in either record or playback.

VU METERS - Indicates the volume level of signal being recorded.

RECORD BUTTON - Activates Record switch.

F.F. - For fast forward tape motion.

PAUSE - To momentarily stop tape motion.

FWD - To move the tape at normal tape speed for recording or playback.

REW - To rewind the tape.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

LISTENING GUIDE NUMBER 1

Name________________________ Date ________________________

Composition ________________________ Composer ________________________

LISTENING GUIDE

Analytical	Judicial	Creative
		A. Teacher Application B. Student Applicatio

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

LISTENING GUIDE NUMBER 2

MUSIC CURRICULUM

Name ______________________________ Date ______________________

Composition ________________________ Composer ___________________

LISTENING GUIDE

ANALYTICAL	JUDICIAL	CREATIVE
1. Volume	1. Volume	A. Teacher Application
2. Timbre	2. Timbre	
3. Duration	3. Duration	
4. Pitch	4. Pitch	B. Student Application
5. Form	5. Form	
	6. General feeling about this composition	

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

LISTENING GUIDE NUMBER 3

TEACHER'S NAME ____________________ PUPIL OR GROUP IDENTIFICATION ____________

DATE ____________________

		Judicial	Creative (Student/Teacher application)
TENSION AND RELEASE			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
UNITY AND CONTRAST			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
TEMPORAL CADENCE			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
FORWARD MOTION			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
CONSISTENCY OF STYLE			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
CLARITY OF BASIC CONTENT			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
FORM			
1. Overall design			
2. Broad tendencies			
3. Phrases			
4. Motive			
COMPLEXITY			
1. Timbre			
2. Volume			
3. Duration			
4. Pitch			
COMPOSER'S INTENT			
1. Structure			
2. Expressiveness			
3. Personal idiom			
PERFORMANCE			
1. Interpretation			
2. Skills			
LISTENER			
1. Personal meanings			
2. Personal feelings			

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

DISCOGRAPHY NUMBER 1

ANTHOLOGIES DISCOGRAPHY

Title	Rec. No.
Man's Early Musical Instruments	FE 4525
History of Music -	
Vol. 1, Ancient and Oriental Music	Victor LM 6057
Vol. 2, Early Medieval Music up to 1300	Victor LM 6015
Vol. 3, Ars Nova and the Renaissance	Victor LM 6016
Vol. 4, The Age of Humanism	Victor LM 6029
Vol. 5, Opera and Church Music	Victor LM 6030
Vol. 6, The Growth of Instrumental Music	Victor LM 6031
Vol. 7, The Symphonic Outlook, 1745-1790	Victor LM 6137
Vol. 8, The Age of Beethoven, 1790-1830	Victor LM 6146
Vol. 9, Romanticism (1830-1890)	Victor LM 6153
Vol. 10, Modern Music (1890-1950)	Victor LM 6092

CONCERTI DISCOGRAPHY

Title	Composer	Rec. No.
Concerto No. 1 in D Major	Paganini	MS 6268
Concerto No. 3 in B Minor	Saint-Saens	
Henry Cowell, Daniel Pinkham Alan Hovhaness		CRI 109
Angels and Devils	Henry Brant	
Music for Piano Mutability	Irving Fine	CRI 106
Piano Concerto	Schoenberg	Col MS-7039
Concertino for Jazz Quartet and Piano	Schuller	At S-1359
Cello Concerto No. 2	Villa-Labos	West 17037
Piano Concerto for Left Hand	Ravel	Ang S-35874
French Horn Concerto	Hindemith	Ang S-35491
Concerto for Orchestra	Bartok	Lon 6469
Rococo Variation for Cello	Tchaikowsky	D66-138674
Piano Concerto	Grieg	Vic LSC-2566
Violin Concerto	Brahms	Vic LDS-2513
Oboe Concerto	Bellini	DGG-139152
Flute Concertos in D and G	Mozart	Phi WS 9011
Harpsichord Concertos in D and G	Bach	Bach 5040
Christmas Concerto	Manfredini	Phi 900025
Concerto in F for two Natural Horns and two Violins	Telemann	None 71066

ELECTRONIC MUSIC DISCOGRAPHY

Title	Composer	Rec. No.
Columbia-Princeton Electronic Music Center	Arel, El-Dabh Ussachevsky, Babbitt, Davidovsky, Luening	MS 6566
Electronic Music - Musique Concerte		SR2-9123
Extended Voices	Morton Feldman: Christian Wolff	32 160156
Song of the Youths - Contact	Stockhausen	138 811 SLPM
Momente	Stockhausen	H-71157
Silver Apples of the Moon	Morton Subotnick	H-71174
A Sound Spectacular (Vol.2)	Edgar Varese	MS 6362
Mikrophonie I	Stockhausen	CBS 321-10044
Electronic Music		Folkways FM 33436
The Science of Sound		Folkways FX6007
Nonesuch Guide to Electronic Music	Beaver and Krause	None HC-73018
Electronics and Percussion	Neuhaus	Co.M57139
Computer Music	Hiller	HS 25053
The In Sound from Way Out	Perrey-Kingsley	VSD-79222
Music from Poland	Penderecki	Philips PHM-500-141
Electronic Music	Cage, Berio	TV 340465

ENSEMBLES DISCOGRAPHY

Title	Composer	Rec. No.
Classical Music of India		Fl 8366
Warren Benson Presents Percussion		CR 4016
Concert Percussion for Orchestra		S/8000
Time Cycle	Foss	Col MS 6280
Ballet Mechanique	Antheil	Vrania UX 134
Petals	Pastch	CRI 213 USD
Music of Harry Pastch	Pastch	CRI 193
Chamber Music	Ives	Cam CRM 804

FUNCTIONAL MUSIC DISCOGRAPHY

Title	Composer	Rec. No.
Background Music for Home Movies		FX 6110
The Downtown Story	Purdy	FC 7070
The World's Greatest Marches		LSC-2757
Ring Games	Courtlander	FC 7004
"Sounds of My City"		FC 7341
Victory at Sea	Richard Rodgers	LSC-2335
Music for Children	Carl Orff	Angel 3582 B
1,2,3 and A Zing	Schwartz	FX-7003
Call and Response	Jenkins	FX-7308

JAZZ DISCOGRAPHY

Title	Composer	Rec. No.
The Story of Jazz		FP 712
The Shape of Jazz to Come		SD 1317
The Outer View	Russell	Riverside RS-3016
Nefertiti	Davis	Col CS-9594
Journey Within	Charles Lloyd Quartet	SD 1493
The Shape of Jazz to Come	Coleman	At 1317
Time Out	Brubeck	Col 1397

MICROTONAL MUSIC DISCOGRAPHY

Title	Composer	Rec. No.
Violin Concerto	Bartok	
Fantasie for Violin Solo	Haba	Folkways FM-3355
The Bewitched	Pastch	Gate S Records
The Sound Phenomenon of Quarter-tone Music		Mesurgia A-8

MUSIC OF THE WORLD - EAST TO WEST DISCOGRAPHY

Title	Record No.
Music of Asia: Japan, China, Okinawa	Folkways 8745
Tribal Music of Australia	Folkways 4439
Music of Viet Nam	Folkways 4352
Music of India: Traditional and Classical	Folkways 4422
Ragar of India	Folkways 8368
African and Afro-American Drums	Folkways 4502
Folk Music of the Mediterranean	Folkways 4501 AB
Lappish Joih Songs from Northern Norway	Folkways 4007
Caribbean Folk Music	Folkways 4533
Indian Music of Mexico	Folkways 8851
Instruments and Music of Bolivia	Folkways 4012
Lumbering Songs from the Ontario Shanties	Folkways 4052

OPERA DISCOGRAPHY

Title	Composer	Rec. No.
Aida	Verdi	LSC-6158
Bluebeard's Castle	Bartck	London OSA-1158
Wozzeck	Berg	DGG-SPLM-13899 1/2
Peter Grimes	Britten	London OSA-1305
The Ballad of Baby Doe	Moore	MGM-S3-GC-1
Don Giovanni	Mozart	Vic LSC-6104
Elektra	Strauss, R.	DGG SPLM-138090/1
Oedipus Rex	Stravinsky	Col MS-6472
Nabucco	Verdi	Lon OSA-1382
Die Walküre	Wagner	Lon OSA-1509
The Crucible	Ward	CRI-168-SD

ORCHESTRAL MUSIC DISCOGRAPHY

Title	Composer	Rec. No.
Six Brandenburg Concertos	Johann S. Bach	BWV 1046-1051
Andre Kostelanetz Plays The Light Music of Shostakovich		MS 6867
Three Favorite Ballets: Firebird, Petrushka and The Rite of Spring.	Stravinsky	D3S 705
The Creation of the World The Soldier's Tale	Milhaud Stravinsky	SDBR-3017
The Nutcracker	Tchaikovsky	LSC-2052
1812 Overture-Marche Slave, Capriccio Italien	Tchaikovsky	MS 6827
Time Cycle	Lukas Foss	MS 6280
Symphonie Fantastique	Berlioz	LSC-2608
Music of Our Time		MS 6733
La Mer, Iberia Psyche and Eros	Debussy Franck	VIC-1246
El Salon Mexico, Appalachian Spring	Copland	MS 6355
Lincoln Portrait, Fanfare for the Common Man: Three Places in New England	Copland Ives	MS 6684
Three Places in New England #3	Charles Ives	SR90149
The Unanswered Question and Variations on "America"	Charles Ives	LM-2893
Light Classics		LSC-2547
The New Sound of the Boston Pops		LSC-2638
Royal Fireworks Music	Geo. F. Handel	MHS 511
Symphony No. 94 in G Major Overture in D Major - Symphony in C Minor	Haydn Boccherina	Angel 35712

ORCHESTRAL MUSIC DISCOGRAPHY - continued -2-

Title	Composer	Rec. No.
The New Music - Vol. 1	Stockhausen, Pederecki, Pousseur	VICS-1239
The New Music - Vol. 2	Boulez Haubenstock-Ramati, Maderna	VICS-1312
The New Music - Vol. 3	Nono, Fukushima, Lehmann	VICS-1313
Pictures at an Exhibition Daphnis and Chloe	Moussorgsky Ravel	VIC-1273
Scheherazade	Rimsky-Korsakov	Angel S35505
Bolero La Valse	Ravel	ML 5293

SOUND EFFECTS DISCOGRAPHY

Title	Rec. No.
Sound Effects - Vol. 1	DFS 7006
Sound Effects - Vol. 2	DFS 7010
Sound Effects - Vol. 3	DFS 7011
Sound Effects - Vol. 4	DFS 7015
Electronic Sound Effects	Folkways 6250
Sounds of the Satellites	Folkways 6200

VOCAL MUSIC DISCOGRAPHY

Title	Composer	Rec. No.
Gregorian Chants		FR 8954
The Great Cantatas of	Johann Bach	MHS 516
The World's Vocal Arts		FE 4510
Songs at Eventide, Marian Anderson		LSC-2769
Chichester Psalms and Facsimile		MS 6792
Peter and the Wolf The Carnival of the Animals	Prokofiev Saint-Saens	SG7211

DISCOGRAPHY NUMBER 2

Source Book: MAKING MUSIC YOUR OWN K

	TITLE	COMPOSER	SECTION
1.	Minuet in G	J. S. Bach	
2.	The Comedians	D. Kabalevsky	Pantomime
3.	Minuet in F.	W. A. Mozart	
4.	Pictures at an Exhibition	M. Mussorgsky	Ballet of the Unhatched Chicks
5.	Memories of Childhood	O. Pinto	Sleeping Time
6.	Love for Three Oranges	S. Prokofiev	March
7.	Mother Goose Suite	M. Ravel	Empress of the Pagodas
8.	Mother Goose Suite	M. Ravel	Hop o' My Thumb
9.	Album for the Young	R. Schumann	Wild Horseman
10.	A Soldier's Tale	I. Stravinsky	Devil's Dance
11.	The Nutcracker Suite	P. I. Tchaikovsky	Dance of the Sugar-Plum Fairy

Source Book: MAKING MUSIC YOUR OWN I

	TITLE	COMPOSER	SECTION
1.	16 Pieces for Children	B. Bartok	No. 7, 27
2.	Poems of the Sea	E. Bloch	Waves
3.	Scuola di Ballo	L. Boccherini	Presto, Pastorale
4.	Divertimento No. 8 in F. Major	W. A. Mozart	Movement 4, 62
5.	Variations on "Ah, vous dirai-je, Maman"	W. A. Mozart	
6.	Sonata a 2 in D Minor	J. Rosenmuller	Movement 3, 15
7.	Marche Militaire	F. Schubert	
8.	Album for the Young	R. Schumann	Wild Horseman
9.	Excerpt from Pulcinella	I. Stravinsky	
10.	Three Dances	T. Susato	Ronde

Source Book: MAKING MUSIC YOUR OWN II

	TITLE	COMPOSER	SECTION
1.	Serenade Op. 8	L. Beethoven	March
2.	Billy the Kid (excerpt)	A. Copland	
3.	Preludes for Piano, No.2	G. Gershwin	
4.	Trois Pieces Breves	J. Ibert	Andante
5.	Tower Sonata	J. Pezel	No. 22
6.	Memories of Childhood	O. Pinto	March, Little Soldier
7.	Waltzes	F. Schubert	Nos. 1 and 2, Op. 9a
8.	The Golden Age	D. Shostakovich	Polka
9.	Adelita	F. Tarrega	Mazurka

Source Book: MAKING MUSIC YOUR OWN III

	TITLE	COMPOSER	SECTION
1.	Scherzo	E. Bozza	
2.	Suite for String Orchestra	A. Corelli	Gigue
3.	The Banshee	H. Cowell	
4.	Henry VIII Incidental Music	E. German	Morris Dance
5.	Sonata in F, Op. 1, No.11	GF. Handel	Allegro-finale
6.	Kleine Kammermusik	P. Hindemith	Schnelle Viertel
7.	Lieutenant Kije	S. Prokofiev	Birth of Kije
8.	Trumpet Tune	H. Purcell	
9.	Scenes from Childhood	R. Schumann	About Strange Lands and People, The Knight of the Hobby-Horse, Two Villancicos

Source Book: MAKING MUSIC YOUR OWN IV

	TITLE	COMPOSER	SECTION
1.	Two Villancicos	J. Encina	
2.	Peer Gynt Suite No. 1	E. Grieg	In the Hall of the Mountain King
3.	Fireworks Music	G. F. Handel	Bourree and Minuet
4.	Escales (Ports of Call)	J. Ibert	Tunis-Nefta
5.	Quartet No. 1, Op 12	F. Mendelssohn	Canzonetta
6.	La Cheminee du Roi Rene, Movement 6	D. Milhaud	Chasse a Valabre
7.	Folk Suite	L. Mitchell	Dance
8.	Quartet No. 6	G. Rossini	Allegretto
9.	Serenade	P. I. Tchaikovsky	Waltz
10.	Concerto in G Minor	A. Vivaldi	Movement 3

Source Book: MAKING MUSIC YOUR OWN V

	TITLE	COMPOSER	SECTION
1.	Suite No. 2 in B Minor	J. S. Bach	Minuet and Badinerie
2.	Praise the Lord	Bechler	
3.	Quartet in C Minor, Op. 18	L. Beethoven	Allegro
4.	Hungarian Dance No. 5 Hungarian Dance No. 6	Brahms	
5.	Waltz in E Minor	Chopin	
6.	Preludes, Book I Preludes, Book II	Debussy	Voiles La Puerta del Vino
7.	Symphony No. 104	Haydn	Allegro Spiritoso
8.	A Midsummer Night's Dream	Mendelssohn	Scherzo
9.	Symphony No. 41	Mozart	Finale
10.	Acadian Songs and Dances	Thomson	Papa's Tune
11.	Lohengrin	Wagner	Prelude to Act III

Source Book: EXPLORING MUSIC II

	TITLE	COMPOSER	SECTION
1.	Carnival of the Animals	C. Saint-Saens	
2.	Children's Symphony	H. McDonald	First Movement
3.	Divertimento No. 8 in F. Major	W. A. Mozart	Contradance
4.	Dance	J. Cage	
5.	The Nutcracker Suite	P. I. Tchaikovsky	
6.	Percussion	Melee	R. Ganz
7.	Age of Gold Ballet Suite	D. Shostakovitch	Polka
8.	Prince of Denmark March	J. Clarke	
9.	Semper Fidelis	J. P. Sousa	
10.	Suite No. 2 for Small Orchestra	I. Stravinsky	March, Waltz, Polka, Galop
11.	Carnival of the Animals	C. Saint-Saens	The Swan
12.	Symphony No. 94(Surprise)	J. Haydn	Second Movement
13.	Two Spanish Songs for Recorders	Anonymous	

Source Book: EXPLORING MUSIC III

	TITLE	COMPOSER	SECTION
1.	Banshee	H. Cowell	
2.	Canzona No. 2 for Brass and Organ	G. Gabrieli	
3.	Children's Symphony	H. McDonald	Second Movement
4.	Corn Grinding Song	Navaho Indian Song	
5.	The Bartered Bride	B. Smetana	Dance of the Comedians
6.	Four Seasons	A. Vivaldi	The First Movement "Spring"
7.	German Dance (Sleighride)	W. A. Mozart	
8.	Hansel and Gretel	E. Humperdinck	
9.	Andante and Rondo	C. M. Von Weber	Rondo for Bassoon and Orchestra
10.	Silversmith Song	Navaho Indian Song	
11.	A Soldier's Tale	I. Stravinsky	March, Pastorale, Devil's Dance
12.	Suite No. 3 in D. Major, Air	J. S. Bach	
13.	Symphony No. 94 (Surprise)	J. Haydn	Third Movement
14.	Toccata for Percussion	C. Chavez	Third Movement
15.	Waltz in C Sharp Minor	F. Chopin	
16.	Waltz in D Flat Major (Minute Waltz)	F. Chopin	
17.	Washington Post March	J. P. Sousa	

Source Book: EXPLORING MUSIC IV

	TITLE	COMPOSER	SECTION
1.	L'Arlesienne Suite No. 1	G. Bizet	Carillon
2.	Organ Concerto No. 13 in F Major	G. F. Handel	Cuckoo and the Nightingale

	TITLE	COMPOSER	SECTION
3.	Danse	Anonymous, 13th century	
4.	Octet	P. Hindemith	Fugue and Three Old-Fashioned Dances
5.	Hary Janos Suite	Z. Kodaly	Prelude, Viennese Musical Clock, The Battle and Defeat of Napoleon
6.	Imitations for Two Instruments	M. Babbitt	
7.	Ionisation	E. Varese	
8.	Liebeslieder Waltzes, Opus 52	J. Brahms	Wie des Abends schone Rote, Die grune Hopfenranke
9.	Music for Instruments	H. Isaac	
10.	Petrouchka Ballet Suite	I. Stravinsky	Scene One, "The Shrovetide Fair"
11.	Piano Sonata in A Minor	W. A. Mozart	First Movement
12.	Pictures at an Exhibition	M. Mussorgsky	
13.	The Pines of Rome	O. Respighi	The Pines of the Janiculum
14.	Rondo No. 2 in G Major	C.P.E. Bach	
15.	Six Pieces for Orchestra Opus 6	A. Webern	Third Piece
16.	Sonata in A Minor, K.175	D. Scarlatti	
17.	String Quartet No. 10 in C Major, K.170	W. A. Mozart	First Movement
18.	Suite No. 3 in D Major, Gavotte	J. S. Bach	
19.	Syrinz	C. Debussy	
20.	Trio in A Minor, Opus 114	J. Brahms	Third Movement
21.	Variation on "Sakura"	K. Eto	
22.	Violin Concerto in D Major, Opus 61	Beethoven	Third Movement

Source Book: EXPLORING MUSIC V

	TITLE	COMPOSER	SECTION
1.	Acadian Songs and Dances	V. Thomson	Papa's Tune, The Alligator and the 'Coon, Super-Sadness
2.	Bamboula	L. Gottschalk	
3.	Canon for String Quartet	A. Schoenberg	
4.	New England Triptych	W. Schuman	Chester
5.	Classical Symphony, Opus 25	S. Prokofiev	
6.	Concerto for Orchestra	B. Bartok	Second Movement
7.	Concerto No. 25 (Water Music Suite)	G. G. Handel	Allegro, Bourree, Hornpipe, Allegro Deciso
8.	Epitaphium for Flute, Clarinet, and Harp	I. Stravinsky	
9.	Mississippi Suite	F. Grofe	Father of Waters and Huckleberry Finn
10.	Fugue in D Major	W. Selby	

	TITLE	COMPOSER	SECTION
11.	Rodeo	A. Copland	Hoe-Down
12.	London March	Anonymous	
13.	Messian (excerpts)	G. F. Handel	
14.	Don Giovanni	W. A. Mozart	Minuet
15.	Musette en Rondeau	J. Rameau	
16.	Oklahoma!	R. Rodgers and O. Hammerstein II	
17.	Two Sketches for Woodwind Quintet	D. Milhaud	Pastoral
18.	Prelude No. 2	G. Gershwin	
19.	The President's March	P. Phile	
20.	Three Places in New England	C. Ives	Putnam's Camp, Redding, Connecticut
21.	Quintet No. 2 in C. Major	L. Boccherini	Fourth Movement, "Madrid Retreat"
22.	Stars and Stripes Forever	J. P. Sousa	
23.	String Quartet in D Minor, Opus 76, No. 2	J. Haydn	First Movement
24.	Symphony No. 3 for Band	V. Giannini	Fourth Movement
25.	Tambourin	J. Rameau	
26.	Till Eulenspiegel's Merry Pranks	R. Strauss	

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

MUSIC CURRICULUM

Interim-Developmental Workshop

February 10 - 14, 1969

SCHEDULE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:30 - 12:30	MUSIC	Multi-Arts Approach (Dennis Bryan) (Functional Clothing)	ART (Mary L. Grayson and Lynn Jones) (Functional Clothing)	DANCE (Geraldine Dimondstein) (Functional Clothing)	LITERATURE (Lucille Clifton and Sam Cornish)
12:30 - 1:20	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
1:30	MUSIC Committee Work On DPME	MUSIC Committee Work On DPME	MUSIC Committee Work On DPME	MUSIC Committee Work On DPME	MUSIC Committee Reports

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

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CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

MUSIC COMPONENT

MUSICAL INSTRUMENT INVENTORY - August, 1968

No.	Quantity	Instrument	Make and Model No.
1.	1	Violin, Full size	Mathias Thoma #22
2.	1	Viola, full size	Mathias Thoma #32
3.	1	Cello, Full size	Mathias Thoma #80
4.	1	Guitar, Classical, concert size	Mathias Thoma
5.	1	Bass Drum with stand and beater	Ludwig #805L
6.	1	Snare Drum Outfit, including stand	Ludwig #2445-1
7.	1	Guiro with scraper	Ludwig #2367
8.	1 pr.	Claves	Ludwig #2368
9.	1	Timpanum, 25" with mallets	Slingerland #350
10.	1	Tambourine, 10"	Ludwig #95
11.	1	Castanets	Ludwig #89
12.	1	Slapstick	Ludwig #74
13.	1	Acme Siren	Ludwig #539
14.	1	Sleigh Bells	Ludwig #97
15.	1 pr.	Finger Cymbals	Ludwig #85
16.	1	Ratchet	Ludwig #75
17.	1	Cow Bell, 5"	Ludwig #129
18.	3	Triangles, 6" 8" 10"	Ludwig #1333 Ludwig #1334 Ludwig #1332
19.	1	Anvil with stand, mallet	Ludwig #4115
20.	2	Woodblock, large small	Ludwig #774 Ludwig #775

Musical Instrument Inventory - August, 1968

No.	Quantity	Instrument	Make and Model No.
21.	3	Timpani Sticks, soft medium hard	Ludwig #347 Ludwig #346 Ludwig #343
22.	2	Bass Drum Beater, wood double head	Ludwig #334 Ludwig #319
23.	1	Whistle, drum major type	Acme #118W
24.	1	Orchestra Bells, 2-1/2 octaves	Musser #645
25.	1	Tam Tam, 30" with stand and mallet	Ludwig #757
26.	6	Music Stands, metal	Manhasset #5470
27.	1	Metronome with flashing light	Franz #9588
28.	1	Autoharp, 15 bar	#45E
29.	6	Recorder, tunable	Cambridge R50
30.	4	Song Whistle, metal	Slingerland #769
31.	1	Xylophone, portable 3-1/2 octaves	Slingerland #X920
32.	1	Floor Cymbal Stand	Slingerland #33F
33.	1	Suspended cymbal, 22"	Ludwig #722
34.	1	Temple Blocks, with stand and mallets	Ludwig #80
35.	1	Orchestra Bell Stand	Ludwig #1368
36.	2 pr.	Wire brushes	Ludwig #193
37.	1	10" dia locking ring	Peripole V1618
38.	1	10" dia tunable hand drum	Peripole V1619
39.	1	12" dia tunable hand drum	Peripole V1620
40.	1	14" dia tunable hand drum	Peripole V1621
41.	1	16" dia tunable hand drum	Peripole V1622
42.	1	10" dia tambourine, tunable	Peripole V1639
43.	1	12" dia tambourine, tunable	Peripole V1640

Musical Instrument Inventory - August, 1968

No.	Quantity	Instrument	Make and Model No.
44.	1	4" dia cymbal, silver bronze	Peripole V3900
45.	1	6" dia cymbal, silver bronze	Peripole V3901
46.	1	8" dia cymbal, silver bronze	Peripole V3902
47.	1	12" dia cymbal, silver bronze	Peripole V2002
48.	1	13" dia cymbal, silver bronze	Peripole V2003
49.	1	6" triangle	Peripole V2352
50.	1	9-1/2" triangle	Peripole V2355
51.	1	10" dia timpani	Peripole V1550
52.	1	13" dia timpani	Peripole V1551
53.	1	16" dia timpani	Peripole V1553
54.	1	10" dia timpani, central tuning	Peripole V1560
55.	1	13" dia timpani, central tuning	Peripole V1561
56.	1	16" dia timpani, central tuning	Peripole V1563
57.	1	Alto Xylophone(no legs or mallets)	Peripole V37-1
58.	1	Soprano Xylophone (no legs)	Peripole V3710
59.	2	Soprano Bells (blocks)	Peripole RB720S
60.	1	Alto Bells (blocks)	Peripole RB720A
61.	1	Tenor Bells (blocks)	Peripole RB725T
62.	3	17 note treble Kalimba	Carroll
63.	3	15 note alto Kalimba	Sound Inc.
64.	2	Tub drum, w. beater	Peripole DR315C
65.	2	Barrel drum, 10" x 15" w. beater	Peripole DR315d
66.	2	Miniconga Drum	Peripole DR315b

Musical Instrument Inventory - August, 1968

No.	Quantity	Instrument	Make and Model No.
67.	3	Twin Bong	Peripold LA90B
68.	3	Twin Bongo	Peripole LA90C
69.	6	Slide Whistles	Ludwig
70.	20	Recorders	Gill W960b
71.	3	Guitar, classical, concert size with nylon strings and cover	Gianini
72.	2	Autoharp, 15 bar	45B
73.	1	Temple blocks with stand and mallets	Ludwig #80
74.	2	Tenor bells (25 blocks)	Peripole #RB725T
75.	2	Soprano Bells (20 blocks)	Peripole RB720S
76.	2	Alto Bells (20 blocks)	Peripole RB720A
77.	2	Bass Bells (12 block)	Peripole RB712B
78.	1	Alto Xylophone, 22 bars w. legs	Peripole V3711
79.	1	Soprano Xylophone, 20 bars w. legs	Peripole V3710
80.	1	Cello, 1/2 size, ebony fingerboard, pegs and trim, adjuster on A and E strings w. canvas cover	Juzek #302
81.	2	Snare drum, outfit, w.stand, carrying case	Ludwig 2445-1
82.	2	Conga drums	Peripole LA95 A-T
83.	2	Conga drums	Peripole LA95 B-T
84.	2	Conga drums	Peripole LA96 C-T
85.	2	Conga drums	Peripole LA96 O-T
86.	1	Tenor Steel Drum	(Standard Model)
87.	1	Baritone Steel Drum	(Standard Model)

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

ELECTRONIC EQUIPMENT INVENTORY

No.	Item	Model No.	Unit Cost	Extension
4	Sound on Sound Tape Recorders	#630	$380.00	$1,520.00
5	Stereo tape recorders	#540	300.00	1,500.00
10	Sony tape recorders	#910	69.50	695.00
4	Sine/Square wave generators	#99T5014	35.95	143.80
2	Mixers (Shure)	#MX6A	44.90	89.80
2	Oscilloscopes - Eico	#38T2644WX	149.95	299.90
2	Standard stereo splicers		5.99	11.98
4	Junction Box - Koss	#T5	7.00	28.00
16	Head phones - David Clark	#300	15.00	240.00
3	Contact microphones	#99H4576	2.49	7.47
2	Autoharp Amplifying Pickups	#STR 920d	24.95	48.00
1	Sony tape deck	Model 200	179.50	179.50
1	KLH (2 speakers, turntable and amplifier)	# 24	325.00	325.00

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

Music Curriculum

Developmental Phases of Musical Exploration

	Strategies
Free Exploration is the period of discovering a wide variety of sounds. A. Encouragement to explore instruments. B. Invitation to share discoveries with class.	
Guided Exploration is an extension of free exploration, that encourages the student to investigate his sound producing materials with greater depth. A. Focus attention on other exploratory possibilities with words, questions or ideas. B. Focus on "listening" to new discoveries with individuals, groups or entire class.	
Free Improvisation is the opportunity for the child to relate or associate his musical ideas in a variety of ways to enhance his search for creative expression. A. Encourage students to experiment with musical ideas discovered during free and guided explorations. B. Discuss qualitative aspects of free improvisation.	
Planned Improvisation is the organization of musical ideas which allows the child to make the most expressive use of the data he has accumulated. A. Planned improvisations - individual. B. Planned improvisations in small or large groups.	
Reinforcement is the acknowledgement of the child's accomplishments with the encouragement of more intensive investigation. A. Focus attention on other exploratory and improvisational possibilities. B. Focus on "listening" to new discoveries.	
Evaluation encourages the child to identify which musical experiences are satisfying to him and which are not. This process is inherent in all phases mentioned above.	

Teacher Comments (Please indicate the effectiveness and appropriateness of the above strategies)

SAMPLE STRATEGIES

Guided Exploration

A. How can you make your instrument sound like:
  1. a snake crawling?
  2. a snake attacking another animal?
  3. a snake resting?

B. What happens to the sound when the:
  1. snake crawls?
  2. snake attacks another animal?
  3. snake is resting?

FreeImprovisation

In the space provided on the forms indicate outcomes of free improvisation.

Planned Improvisation

A. Using your instrument tell me a story about a snake.
B. Would anyone else like to help tell this story?

Reinforcement

A. How can you make your instruments sound like a number of snakes crawling, attacking, resting, etc.
B. What happens to the sound when there are several snakes crawling, attacking, resting, etc.?

Evaluation

Evaluation in terms of musical experinces should occur only as a natural outgrowth.

Teacher Comments

(Please try, if not all, at least three of the sample stragegies listed.)
We would like to know in this area the effectiveness and appropriateness of the strategies suggested. Please submit your own strategy ideas and comments about the suggested strategies by Friday, November 8.

SAMPLE STRATEGIES

How can you make your instrument sound like:

A. A fish swimming.
B. A fish eating.
C. A fish caught on a hook.

A. The taste of salt.
B. The taste of pepper.
C. The taste of sugar.

A. The smell of bananas.
B. The smell of coffee.
C. The smell of gasoline.

A. You feel happy.
B. You feel sad.
C. You feel angry.

A. A car in traffic.
B. A car speeding.
C. A car slowing down.

A. A train leaving the station.
B. A train speeding.
C. A train slowing down.

A. You are talking to yourself.
B. A talk between two people.
C. A talk between three people.

A. An argument.
B. A fight.
C. Shaking hands.

A. A sunny day.
B. A rainy day.
C. A thunder storm.

A. A hot day.
B. A cold day.
C. A warm day.

A. One part of a machine.
B. Two parts of a machine.
C. Three parts of a machine.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

1200 Seventeenth Street, N.W.
Washington, D.C. 20036

September 13, 1968

TO: All MMCP Consultants

We are making considerable progress on the Pre-cycle Curriculum. Enclosed are materials which evolved from our two-week workshop for twelve teachers held at CAREL from August 12-23. Ron, Lee and I would appreciate your reactions to these materials after you have had an opportunity to examine them.

We call your attention particularly to the enclosure entitled, A Curriculum Plan-Outline. You can assist us measurably in our efforts by evaluatiing the section of this document entitled, Goals and Objectives. We would appreciate reactions to this section from you and your teachers. Please make deletions, alterations, additions, or modify this section in any way and return to us with your comments via enclosed envelope.

Also, please comment on the enclosed lists of strategies which we designed for our workshop.

Thank you for assisting us in these concerns. You will hear from us from time to time as our work progresses.

Sincerely,

Cole Biasini and Lee Pogonowski
Associates in Music

Copies to:

Natalie Wiegel, Beaverton, Ore.
George Kyme, Oakland, Calif.
Lionel Nowak, Bennington, Vt.
Ronald B. Thomas, Nanuet, N.Y.
Walter Barnum, Seattle, Wash.
Alex Campbell, Denver, Colo.
Harold Carle, New York, N.Y.
Josephine Caruso, Yonkers, N.Y.
Marie Culjak, Chicago, Ill.
Ronald Davis, Ft. Lauderdale, Fla.
Dolores Francis, Washington, D.C.
Robert Gibbs, Potsdam, N.Y.
Stanley Haynes, Seattle, Wash.
Arthur Hornberger, Stony Point, N.Y.
Barbara Hurley, Garden City, N.Y.
John McManus, Eugene, Oregon
Eddie Lou Neel, San Angelo, Tex.
Richard Neubert, White Plains, N.Y.
Harald Normann, Staten Island, N.Y.
Ruth Parson, Abilene, Tex.
Barbara Reeder, Seattle, Wash.
Julie Reichling, New Rochelle, N.Y.
Robert Revicki, W. Hartford, Conn.
Carroll Rinehart, Tucson, Ariz.
Emily Romney, Cambridge, Mass.
Sister Virginia Saalfeld, Marylhurst, Ore.
Sister Ruth Sheehan, Houston, Tex.
Robert Thayer, Mt. Vernon, Ia.
Sister Mary Joseph Umiejewski, Hartsdale, N.Y.

QUESTIONNAIRE FOR PARTICIPANT TEACHERS TO HELP CAREL IMPROVE FUTURE MUSIC WORKSHOP PROGRAMS

We will greatly appreciate your best thinking to help us improve our future workshops for music education. Although we hope that you have benefitted through lasting gains in music, as well as enjoyment, the really essential purpose of the workshop you attended should be considered in terms of what your pupils can gain.

1. Please rank (e.g., 1st through 5th if there are five) the most important gains that you believe your pupils will achieve as a result of your having attended the CAREL Music Workshop.

2. Please list any additional things which could be done that you think might result in better educational opportunities in music for your pupils.

3. Please list any things or situations that you think may be obstacles to your pupils' educational opportunities in music.

- PLEASE USE ATTACHED CONTINUATION SHEET IF ADDITIONAL SPACE IS NEEDED -

4. Please rank (e.g., 1st through 5th if there are five) any losses that you believe your pupils may experience as a result of your attending the CAREL Music Workshop.

5. Do you think there is any better way to have prepared you to teach music to your pupils than the kind of workshop you atteded at CAREL?

Yes No Don't Know

If "Yes", please describe the better way.
If "No' or "Don't Know", please say why.

6. What might CAREL do to improve its future preparation of teachers such as you to teach music to pupils similar to yours?

- PLEASE USE ATTACHED CONTINUATION SHEET IF ADDITIONAL SPACE IS NEEDED -

- CONTINUATION SHEET -

Please Identify by Number Any Items Continued on This Sheet

Central Atlantic Regional Ecuational Laboratories

Music Component

Classroom Observation Schema

The reasons for a classroom observation schema are:

1. to better understand the teacher's frame of reference when she discusses her classroom experiences.
2. to identify those success factors which are common in all classrooms.
3. to identify unique factors which contribute to the success of a program in a particular classroom enclusive of teacher idiosyncrasies.
4. to determine the degree to which each pupil senses his own personal power as an imaginative and creative person.
5. to identify the operational level of each teacher.

Subsequent to preliminary classroom observations, we will endeavor to refine the goals identified above into the following categories:

1. Attitudinal Assessment
2. Classroom environment
3. Processes
4. Concepts
5. Skills
6. Strategies

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TEACHER QUESTIONNAIRE NUMBER 1

Teacher ______________________________ Date ________________________

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

1. What strategies did you use from the sample list?

2. Why did you select the particular strategies?

3. How did the musical results differ from the results of prior musical activities?

4. Do you feel the Developmental Phases of Improvisation is a useful reference in guiding your pupils in the discovery process? Why?

5. What new strategy ideas did you develop as a result of the form?

6. Other Comments:

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

Music Component

Individual Teacher Conferences

1. To what extent have you involved your pupils in the CAREL Music Program?

2. What does the CAREL Music Program mean to you?

3. What are the difficulties you've encountered in implementing the CAREL Music Program?

4. What are the more successful characteristics of the program in terms of

    1) pupil involvement?

    2) strengthening other areas of study?

    3) variety of musical experiences?

5. How do you feel we can assist you further in developing a meaningful music program in your classroom?

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

TEACHER QUESTIONNAIRE NUMBER 2

NAME ______________________________ DATE ____________________

GRADE ____________________ SCHOOL ____________________

Please complete the following sentences and feel free to add additional comments.

1. The best use I have made of the taped vocal material is ____________________

____

____

____

____

____

2. The best use I have made of the taped listening examples is ____________________

____

____

____

____

____

____

Please check the appropriate box in reference to the Sidny Lippman musical fairy tales.

1. I have used the following with my children:

    A. A Lamb is What I Am
    B. As Big As an Ox
    C. Slowly and Steadily
    D. none of the above

2. The musical the children enjoyed most is:

    A. A Lamb is What I am
    B. As Big As an Ox
    C. Slowly and Steadily
    D. none of the above

2. The musical the children enjoyed most is: - continued

The reason is ____

____

____

____

____

3. The musical the children enjoyed least is:

A. A Lamb is What I Am
B. As Big As an Ox
C. Slowly and Steadily
D. none of the above

The reason is ____

____

____

____

____

4. I recommend the following for use at my pupil's grade level.

A. A Lamb is What I Am
B. As Big As an Ox
C. Slowly and Steadily
D. none of the above

The reason is ____

____

____

____

____

Please feel free to add any additional comments regarding the two or three taped musicals by Sidney Lippman.

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

1968- Experience Reports From Teacher-Consultants

We would like to incorporate a comprehensive report of each classroom situation in our May report to the U.S.O.E. Below are listed categories which may or may not be appropriate to your situation. Please do not feel compelled to respond to questions which are irrelevant to your classroom experience. If other categories occur to you, please include them in your report.

In addition to the written reports we need tapes representing children operating at various levels of the Developmental Phases of Musical Exploration, i.e., free exploration, guided exploration, free improvisation, planned improvisation, reinforcement and evaluation.

So that we may include your papers and tapes in our final report, it is imperative that we receive them by Monday, April 28. Attached is a consultant invoice to be signed and returned to us with your report.

****

1. What have you learned about your pupils this year that you did not realize about former pupils?
2. What have you learned about yourself since the beginning of this program?
3. What are the grouping patterns in your classroom as they relate to social and musical behavior?
4. What changes would you make on your next start with this program at the same grade level?
5. Has this program affected your mode of operation in other subject areas at your grade level? If yes, explain how.
6. What do you believe to be the most important outcomes of your creative music program this year?
7. Identify and discuss the most meaningful musical experiences used this past year.
8. Comment on the instruments you feel are most appropriate at your grade level.

Attachment

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

Music Component

Pupil Data Form

Please supply the information requested below and return to CAREL at your earliest convenience.

Name of teacher ______________________________

Grade you teach ____________________

No. of children in your class __________

Name of each child Sex Age in years and months (date of birth)

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________
16. ____________________
17. ____________________
18. ____________________
19. ____________________
20. ____________________

21. ______________________________

22. ______________________________

23. ______________________________

24. ______________________________

25. ______________________________

26. ______________________________

27. ______________________________

28. ______________________________

29. ______________________________

30. ______________________________

31. ______________________________

32. ______________________________

33. ______________________________

34. ______________________________

35. ______________________________

36. ______________________________

37. ______________________________

38. ______________________________

39. ______________________________

40. ______________________________

Central Atlantic Regional Educational Laboratories

Music Component

General Procedures for Testing in the Schools

1. Report to principal
2. Contact teacher
3. Set-up equipment
4. Randomly select 6 pupils
5. Administer Questionnaire
    - a) Lee interacts with pupils
    - b) Cole records pupil responses
    - c) Cole plays taped sample
6. Administer Aural Test
    - a) Lee poses problem
    - b) Cole operates tape deck
    - c) Lee operates tape loop
    - d) Cole times each performance
7. Equipment
    - 1) tape deck + 2 mics and stands
    - 2) tape recorder
    - 3) 2 tape loops
    - 4) 2 take-up reels
    - 5) splicer and blade
    - 6) splicing tape
    - 7) earphones
    - 8) recorded tape
    - 9) xylophone + stand, mallets
    - 10) music stand base
    - 11) clean tape

Central Atlantic Regional Educational Laboratory

Music Component

Random Sampling of Pupils

D. Francis	K. Bryan	S. Daye	A. Robinson	M. Jackson	T. Minton
1	2	3	4	5	6
1	2	3	4	9	7
17	5	7	12	6	11
22	10	8	13	15	13
27	16	11	21	17	5
31	19	14	26	23	3
34	35	19	27	14	2

R. Taft	D. Ploss	G. Terran	P. Wilson	D. Bryan
7	8	9	10	11
20	2	5	1	2
16	4	11	3	8
12	6	17	7	14
7	7	24	11	21
5	10	29	13	18
1	30	32	17	16

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

SCHOOL ______________________ TEACHER ______________ DATE ________

STUDENT'S NAME ______________________

Pupil Questionnaire

1. What do you like best about music?

   (Purpose of this question is to determine the child's frame of reference, i.e., how broad is his perspective.)

2. Is there anything you don't like about music?

   (An extension of question #1)

3. Listening Example -

   3A. What can you say about this music? (H. Partch - "Petals Fell")

   (To assess analytical, judicial, and creative thinking.)

   3B. Would you like to hear it again sometime?

   yes no don't know

   (To assess the child's disposition to new musical situations.)

   3C. Why?

   (To determine whether the child can relate to musical characteristics found in the example.)

4. How do you feel about making music of your own?

   (To assess operational power: a) Does the child see himself as an imaginative and creative person?

   b) To what extent is the child involved as a musician i.e., composer/performer/conductor/critic?

   c) To identify attitudes related to this activity.)

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

AURAL TESTING PROCEDURE

REASONS FOR ADMINISTERING THE AURAL TEST

1. To assess the child's level of operation
2. To measure the child's sensitivity to a musical stimulus, viz., ostinato

Test A

1. Allow two minutes for exploration of the xylophone.
   (to measure the child's degree of freedom.)
2. Read: "one of our submarines has spotted an enemy ship. The emergency bell is ringing."
3. Listen to the tape loop. speed 7 1/2
4. Read: "Using the xylophone, describe what the men do as they report to their battle stations."
5. Record 1-minute
   - A. Teacher's name
   - B. Student's name
   - C. Improvisation

Test B

1. Allow two minutes for exploration of the xylophone.
2. Read: "A submarine is stuck at the bottom of the ocean."
3. Listen to the tape loop. speed 3 3/4
4. Read: "Using the xylophone, describe how the men and women on board feel."
5. Record 1-minute.
   - A. Teacher's name
   - B. Student's name
   - C. Improvisation

AURAL TESTING PROCEDURE

TEST C - continued

1. Allow two minutes for exploration of the xylophone.
   (to measure the child's degree of freedom.)

2. "Listen to the sounds on the tape." 3 3/4 "Pure" (no Programmatics)

3. "As you listen to it a second time play along with it adding on the xylophone whatever sounds you wish."

4. Record 1-minute

   A. Teacher's name

   B. Student's name

   C. Improvisation

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

Pre and Post-Tests

Mrs. Taft - nursery	Pre-test	Post-test
1. James Walden	C	A
2. Philippe Ahoua	B*	C
3. Catherine Schwitz	C*	A*
4. Lisa Behreus	A*	C*
5. Caroline Taft	B*	Absent
6. Caroline Earle	A*	Absent

Miss Jackson - kindergarten

1. Pierre Mills	A	C
2. Cheryl Crawford	B	C
3. Alison Hayes	B	C
4. Dana Lawrence	C	A
5. Crystal Carter	C	A
6. Kevin Waller	A*	C*

Mrs. West - kindergarten (Control Class)

1. Frank Simpson		C
2. Carolyn Stevens		C
3. Karen Smalls		C
4. Angela Robinson		C
5. Shawn Graham		C*
6. Reubin Atkins		C*

Mrs. Minton - non-graded (1 and 2)

1. Marc Walsh	A	C
2. Ricky Pryor	B	C
3. David Steiverse	B	C
4. Willie Brooks	C	A
5. Carrol Silvester	C	A
6. Guy Plumber	A*	Absent

Mrs. Francis - grade 2

1. Joseph Bowie	A	C
2. Marcia Linder	A	C
3. Donna White	B	C
4. Brian Duarte	B	Absent

(Continued)

* pupil unresponsive

Mrs. Francis - grade 2 (continued)	Pre-test	Post-test
5. Tevin Givins	C	A
6. Timothy Harris	C	Absent
Mrs. Wilson - grade 2		
1. Valerie Fowler	A	C
2. Gregory Clark	A	Absent
3. Joyce Campbell	B*	C
4. Adrian Scott	B*	Absent
5. Wanda Williams	C*	A
6. Ann Marie Skretting	C*	A
Mrs. Daye - non-graded (1 and 2)		
1. Robert Cooper	A	Absent
2. Darren Tover	A	C
3. Barbara Houston	B	C
4. Darius King	B	C
5. James Reed	C	A
6. Linda Boddie	C	A
Mrs. Ploss - grade 2		
1. Verna Bright	A	Absent
2. Rodney Lambert	A	C
3. David McNeill	B	C
4. Sherman Ager	B	C
5. William Clark	C	A
6. Richard Cummings	C	A
Mrs. Jordan - grade 2 (Control class)		
1. Robin Byrd		C
2. Daryl Wilson		C
3. Melva Sneed		C
4. Carolyn Fauntleroy		C
5. Sharon Norwood		C
Miss Bryan - grade 3		
1. Gary Clark	C	Absent
2. Ricardo Delgado	C	A
3. Orlando Lopez	B	C
4. Cheri Carter	B	C

* pupil unresponsive

Miss Bryan - grade 3 (continued)	Pre-test	Post-test
5. Christie Fitzgerald	A	C
6. Margarine Parker	A	C
Mrs. Cornellius - grade 3 (Control class)		
1. Allison Bowan		C
2. Brian Fitch		C
3. Elizabeth Saunders		C
4. Wade Grubik		C
5. Kelly Gardner		C
6. Daniel Powers		C
Mrs. Robinson - grade 4		
1. Vanessa Neal	B*	Absent
2. Sharon Manning	C	Absent
3. Michael Thee	C	Absent
4. Milicent Wright	A	Absent
5. Carolyn Wood	A	C
6. Daryl Younger	B	Absent
7. Michele Hanson		C
8. Donald Askew		C
Mrs. Morgan - grade 4 (Control class)		
1. Michael Godbalt		C
2. Richard Jones		C
3. Samuel Dennison		C
4. Seveia Wilson		C
Mr. Bryan - grade 6		
1. Paul Brown	A	C
2. Donald Halleman	A	Absent
3. Charles Stout	B	C
4. Betty Detzel	B	Absent
5. Thomas Zang	C	A
6. Mark Wingate	C	A

* pupil unresponsive

CENTRAL ATLANTIC REGIONAL EDUCATIONAL LABORATORY

CAREL Music Curriculum Presentations

1. National Council of the Arts in Education, Sarah Lawrence College, September, 1968.
2. Delaware State Music Educators Association Annual Conference, October, 1968.
3. Arizona State Music Educators Association Annual Conference, November, 1968.
4. The University of California at Berkeley, November, 1968.
5. Music Educators National Conference All-Eastern Conference, Washington, D.C., January, 1969.
6. Pennsylvania State University, February,1969.
7. New York State University, College at Fredonia, March, 1969.
8. East Silver Spring Elementary School PTA, Silver Spring, Md., March, 1969.
9. National Association of Elementary School Principals, Las Vegas, April, 1969.
10. University of Maryland, May, 1969.

CAREL ARTS AND HUMANITIES CURRICULUM DEVELOPMENT PROGRAM

Visual Arts

Irving Kaufman . . . . Component Director
Mary Louise Grayson
Sharon A. Jones

Dance

Geraldine Dimondstein . . . . Component Director
Naima Prevots

Literature

Benjamin DeMott . . . . Component Director
Jeanette Amidon
Lucille Clifton
Sam Cornish
Maxine Kumin

Music

Americole Biasini . . . . Component Director
Lenore M. Pogonowski

Theatre

Robert Alexander . . . . Component Director
Stevanne Auerbach
Norman Gevanthor
Kenneth Kitch

Central Atlantic Regional Educational Laboratory
1200 Seventeenth Street, N.W.
Washington, D.C. 20036

C. Taylor Whittier . . . . Executive Director

Martin Dishart . . . . Program Director